

SEQUENCE LISTING

5 <110> HEINRICHS, VOLKER
 CHEN, TEDDY
 PATTEN, PHILLIP A.

10 <120> IFN-ALPHA HOMOLOGUES

10 <130> 02-101510/0140.002

15 <140>
 <141>

15 <150> 09/415,183
 <151> 1999-10-07

15 <160> 88

20 <170> PatentIn Ver. 2.0

20 <210> 1
 <211> 498
 <212> DNA
25 <213> Artificial Sequence

25 <220>
 <223> Description of Artificial Sequence: Synthetic DNA

30 <220>
 <223> Clone ID 2DH12

30 <400> 1

35 tgtgatctgc ctcagaccca cagccttggc aacaggaggg ccttgatgct cctggcacaa 60
 atgggaccaa tctctccttt ctccctgcctg aaggacagac aagactttgg attcccccaag 120
 gaggagttt atggcaacca gttccagaag gctcaaggcca tctctgtcct ccatgagatg 180
 atccagcaga cttcaatct cttagcaca aaggattcat ctgtgtgtt ggaacagacc 240
 ctcctagaaa aattttccac tgaactctac cagcagctga atgacctgga agcctgcgtg 300
 atacaggagg taggggtgaa agagactccc ctgtatgaatg tggactccat cctggctgtg 360
 aggaagtact tccaaagaat cactcttat ctaatagaga ggaataacag cccttgcgtca 420
 tgggaggttg tcagagcaga aatcatgaga tctttctctt tttcaacaaa cttgcaaaaa 480
 agattaagga ggaaggaa 498

45 <210> 2
 <211> 498
 <212> DNA
 <213> Artificial Sequence

45 <220>
 <223> Description of Artificial Sequence: Synthetic DNA

50 <220>
 <223> Clone ID 2CA3

55 <400> 2

55 tgtgatctgc ctcagaccca cagccttggt gacaggaggg ccatgatact cctggcacaa 60
 atgggaccaa tctctccttt ctccctgcctg aaggacagat atgatttcgg attcccccaag 120
 gaggagttt atggcaacca gttccagaag gctcaaggcca tctctgtcct ccatgagatg 180

atccagcaga cttcaatct cttagcaca aaggattcat ctgctgcttg ggaacagagc 240
ctcctagaaa aattttcac tgaacttac cagcagctga atgaactgga agcatgtgtg 300
atacaggagg ttgggggtggg agagactccc ctgatgaatg gggactccat cctggctgtg 360
aagaagtact tccaaagaat cactcttat ctaatagaga ggaaatacag cccttgc 420
5 tgggaggttg tcagagcaga aatcatgaga tctttcttt tttcaacaaa cttgcaaaaa 480
agattaagga ggaaggaa 498

<210> 3
<211> 498
10 <212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic DNA

15 <220>
<223> Clone ID 4AB9

<400> 3
20 tgtgatctgc ctcagaccca cagccttggc aacaggaggg ctttgatact cctggcacaa 60
atgggacgaa tctctcctt ctcctgcctg aaggacagac atgactttgg attcccccg 120
gaggagttt atggcaacca gttccagaag gctcaagcca tctctgtcct ccatgagatg 180
atgcagcaga cttcaatct cttcagcaca aagaactcat ctgctgcttg ggatgagacc 240
25 ctcctagaaa aattttcac tgaacttac cagcaactga atgaactgga agcatgtgtg 300
atacaggagg ttgggggtggg agagactccc ctgatgaatg aggactccat cctggctgtg 360
aagaataact tccaaagaat cactcttat ctgacagaga agaagtatag cccttgc 420
tgggaggttg tcagagcaga aatcatgaga tctttcttt tttcaacaaa cttgcaaaaa 480
agattaagga ggaaggaa 498

30 <210> 4
<211> 498
<212> DNA
<213> Artificial Sequence

35 <220>
<223> Description of Artificial Sequence: Synthetic DNA

<220>
<223> Clone ID 2DA4

40 <400> 4
tgtgatctgc ctcagaccca cagccttggt aacaggaggg ctttgatgct cctggcacaa 60
atgggaagaa tctctcctt ctcctgcctg aaggacagac aagactttgg attccccag 120
gaggagttt atagcaacca gttccagaag gctcaagcca tctctgtcct ccatgagatg 180
45 atgcagcaga cttcaatct cttcagcaca aaggactcat ctgctgcttg ggatgagacc 240
ctcctagaaa aattttcac tgaacttac cagcagctga atgacctgga agcctgcgtg 300
atacaggagg ttgggggtggg agagacccc ctgatgaatg tggactccat cctggctgtg 360
aggaagtact tccaaagaat cactcttat ctaatagaga ggaaatacag cccttgc 420
50 tgggaggttg tcagagcaga aatcatgaga tctttcttt tttcaacaaa cttgcaaaaa 480
agattaagga ggaaggaa 498

<210> 5
<211> 498
<212> DNA
55 <213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic DNA

DRAFT - 06/06/2000

<220>

<223> Clone ID 3DA11

<400> 5

5 tttttttttt ctcagaccca cagccttgg aacaggaggg ctttgact cttggcacaa 60
atgggaagaa tctctccccc ctcctgcctg aaggacat atgatttcgg attccccccag 120
gaggagttt atggcaacca gttccagaag gctcaagcca tctctgtcct ccatgagatg 180
atccagcaga ctttcaatct ctccagcaca aaggattcat ctgctgctt ggatgagacc 240
ctccttagaaa aatttccac tgaacttac cagcagctga atgaccttgg agcctgcgtg 300
10 atacaggagg ttgggggttgg aagacccccc ctgatgaatg aggactccat cttggctgtg 360
aagaataact tccaaagaat cactcttat ctaatagaga gaaatacag cccttgcgtca 420
tgggaggtt atggcaacca aatcatgaga tctttctt tttcaacaaa cttgcaaaaa 480
agattaagga ggaaggaa 498

15 <210> 6

<211> 498

<212> DNA

<213> Artificial Sequence

20 <220>

<223> Description of Artificial Sequence: Synthetic DNA

<220>

<223> Clone ID 2DB11

25 <400> 6

tgtgatctgc ctcagaccca cagccttgg aacaggaggg ctttgatgt cttggcacaa 60
atgggaagaa tctctccccc ctcctgcctg aaggacat atgatttcgg attccccccag 120
gaggagttt atggcaacca gttccagaag gctcaagcca tctctgtcct ccatgagatg 180
30 atccagcaga ctttcaatct ctccagcaca aaggattcat ctgctgctt ggatgagacc 240
ctccttagaaa aatttccac tgaacttac cagcagctga atgacttgg agcctgtgtg 300
atacaggagg ttgggggttgg aagacccccc ctgatgaatg tggactccat cttggctgtg 360
aggaagtact tccaaagaat cactcttat ctaatagaga gaaatacag cccttgcgtca 420
tgggaggtt atggcaacca aatcatgaga tctttctt tttcaacaaa cttgcaaaaa 480
35 agattaagga ggaaggaa 498

<210> 7

<211> 498

<212> DNA

40 <213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic DNA

45 <220>

<223> Clone ID 2CA5

<400> 7

tgtgatctgc ctcagaccca cagccttgg aacaggaggg ctttgataact cttggcacaa 60
50 atgggaccaa tctctccccc ctcctgcctg aaggacac aagactttgg attccccccag 120
gaggagttt atggcaaccc gttccagaag gctcaagcca tctctgtcct ccatgagatg 180
atccagcaga ctttcaatct ctccagcaca aagaactcat ctgctgctt ggaacagacc 240
ctccttagaaa aatttccac tgaacttac cagcagctga atgaccttgg agcctgcgtg 300
55 atacaggagg ttgggggttgg aagacccccc ctgatgaatg aggactccat cttggctgtg 360
aagaataact tccaaagaat cactcttat ctaatagaga gaaatacag cccttgcgtca 420
tgggaggtt atggcaacca aatcatgaga tctttctt tttcaacaaa cttgcaaaaa 480
agattaagga ggaaggaa 498

<210> 8

<211> 498
<212> DNA
<213> Artificial Sequence

5 <220>
<223> Description of Artificial Sequence: Synthetic DNA

<220>
<223> Clone ID 2G6

10 <400> 8
tgtgatctgc ctcagaccca cagccttgg aacaggaggg cttgtataact cctggcacaa 60
atgggaagaa tcttccttt ctccctgcctg aaggacagac atgactttgg attccccca 120
gaggagttt atggcaacca gttccagaag gctcaagccca tctctgtcct ccatgagatg 180
15 atccagcaga cttcaatct ctccagcaca aaggactcat ctgctacttg ggaacagagc 240
ctcctagaaa aattttccac tgaacttaac cagcagctga atgacttgg agcctgcgtg 300
atacaggagg ttgggttgg aagactccc ctgatgaatg tggaccat cctggctgtg 360
aagaaatact tccaaagaat cactcttat ctgacagaga agaaatacag cccttgc 420
20 tgggaggttgc tcagagcaga aatcatgaga tctttctt tttcaacaaa cttgcaaaaa 480
agattaagga ggaaggaa 498

<210> 9
<211> 498
<212> DNA
25 <213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic DNA

30 <220>
<223> Clone ID 3AH7

<400> 9
tgtgatctgc ctcagaccca cagccttgg aacaggaggg cttgtataact cctggcacaa 60
35 atgcgaagaa tcttccttt ctccctgcctg aaggacagac atgactttgg attccccca 120
gaggagttt atggcaacca gttccagaag gctcaagccca tctctgtcct ccatgagatg 180
atccagcaga cttcaatct ctccagcaca aaggattcat ctgctgcttg ggaacagagc 240
ctcctagaaa aattttccac tgaacttcac cagcaactga atgacttgg agcatgtgt 300
gtacaggagg ttgggttgg aagactccc ctgatgaatg aggactccat cctggctgtg 360
40 aagaaatacc tccaaagaat cactcttat ctgacagaga agaagtatacg cccttgc 420
tgggaggttgc tcagagcaga aatcatgaga tctttctt tttcaacaaa cttgcaaaaa 480
agattaagga ggaaggaa 498

<210> 10
<211> 498
<212> DNA
45 <213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic DNA

50 <220>
<223> Clone ID 2G5

55 <400> 10
tgtgatctgc ctcagaccca cagccttgg aacaggaggg cttgtatgct cctggcacaa 60
atgggaagaa tcttccttt ctccctgcctg aaggacagac aagactttgg attccccca 120
gaggagttt atggcaacca gttccagaag gctcaagccca tctctgtcct ccatgagatg 180
atccagcaga cttcaatct ctccagcaca aaggattcat ctgctgcttg ggaacagagc 240

ctcctagaaa aattttccac tgaactctac eagcagctga atgacacctgga agcctgcgtg 300
atacaggagg ttgggggtgga agagaccccc ctgatgaatg tggactccat cctggctgtg 360
aggaagtact tccaaagaat cactcttat ctaatagaga ggaaatacag cccttgcgtca 420
5 tggaggttg tcagagcaga aatcatgaga tctttcttt tttcaacaaa cttgcaaaaa 480
agattaagga ggaaggaa 498

10 <210> 11
<211> 498
<212> DNA
<213> Artificial Sequence

15 <220>
<223> Description of Artificial Sequence: Synthetic DNA

20 <220>
<223> Clone ID 2BA8

25 <400> 11
tgtgatctgc ctcagaccca cagccttgg aacaggaggg ccctgatact cctggcacaa 60
atgggaccaa tctctcctt ctcctgcctg aaggacagat atgatttcgg attccccag 120
gaggagttt atggcaacca gttccagaag gctcaagcaca tctctgtcct ccatgagatg 180
atccagcaga ccttcaatct cttcagcaca aaggattcat ctgctgcttg ggaacagagc 240
ctcctagaaa aattttccac tgaactttac cagcagctga atgacacctgga agcctgcgtg 300
atacaggagg ttgggggtgga agagaccccc ctaatgaatg tggactccat cctggctgtg 360
30 aggaagtact tccaaagaat cactcttat ctaatagaga ggaaatacag cccttgcgtca 420
tggaggttg tcagagcaga aatcatgaga tctttcttt tttcaacaaa cttgcaaaaa 480
agattaagga ggaaggaa 498

35 <210> 12
<211> 498
<212> DNA
<213> Artificial Sequence

40 <220>
<223> Description of Artificial Sequence: Synthetic DNA

<220>
<223> Clone ID 1F3

45 <400> 12
tgtgatctgc ctcagaccca cagccttgg aacaggaggg ccttgatact cctgggacaa 60
atgggaagaa tcttcattt ctcctgcctg aaggacagac atgactttgg attccccag 120
gaggagttt atggcaacca gttccagaag gctcaagcaca tctctgtcct ccatgagatg 180
atccagcaga ccttcaaccc cttcagcaca aaggactcat ctgctgcttg ggatgagagg 240
cttctagaca aactctatac tgaactttac cagcagctga atgacacctgga agcctgtgtg 300
50 atgcaggagg tgggggtggg agggactccc ctgatgaatg aggactccat cctggctgtg 360
agaaaatact tccaaagaat cactcttat ctgacagaga agaaatacag cccttgcgtcc 420
tggaggttg tcagagcaga aatcatgaga tctttcttt tttcaacaaa cttgcaaaaa 480
agattaagga ggaaggaa 498

55 <210> 13
<211> 498
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic DNA

<220>

<223> Clone ID 4BE10

<400> 13

5 tggatctgc ctcagaccca cagccttggg aacaggaggg ctttgataact cctggcacag 60
atgggacaa tctccctt ctcctgcctg aaggacagat atgatttcgg attccccag 120
gaggagttt atggcaacca gttccagaag gctcaagcca tctctgtcct ccatgagata 180
atgcagcaga cttcaatct cttcagcaca aagaactcat ctgctgctt ggatgagacc 240
ctcctagaaa aattttccac tgaaccttac cagcaactgta atgaactgga agcatgtgt 300
atacaggggg ttgggggtgga agagactccc ctgatgaatg aggactccat cttggctgt 360
10 agggaaatact tccaaagaat cactcttat ctgacagaga agaagtatag cccttgttcc 420
tgggaggttgc tcagagcaga aatcatgaga tctttctt tttcaacaaa cttgcaaaaa 480
agattaagga ggaaggaa 498

<210> 14

15 <211> 498

<212> DNA

<213> Artificial Sequence

<220>

20 <223> Description of Artificial Sequence: Synthetic DNA

<220>

<223> Clone ID 2DD9

25 <400> 14

tggatctgc ctcagaccca cagccttggg aacaggaggg ctttgatgct cctggcacaa 60
atgggaaagaa tctccctt ctcctgcctg aaggacagat atgatttcgg attccccag 120
gaggagttt atggcaacca gttccagaag gctcaagcca tctctgtcct ccatgagatg 180
atccagcaga cttcaatct cttcagcaca aaggattcat ctgctgctt ggaacagagc 240
30 ctcctagaaa aattttccac tggacttac cagcagctgta atgacacgttgg agcctgcgt 300
atacaggagg ttgggggtgga agagacccc ctgatgaatg aggactccat cttggctgt 360
aagggaaatact tccaaagaat cactcttat ctgacagaga agaagtatag cccttgttcc 420
tgggaggttgc tcagagcaga aatcatgaga tctttctt tttcaacaaa cttgcaaaaa 480
agattaagga ggaaggaa 498

35

<210> 15

<211> 498

<212> DNA

<213> Artificial Sequence

40

<220>

<223> Description of Artificial Sequence: Synthetic DNA

<220>

45 <223> Clone ID 3CA1

<400> 15

tggatctgc ctcagaccca cagccttggc aacaggaggg ctttgataact cctggcacaa 60
atgggaaagaa tctccctt ctcctgcctg aaggacagac atgactttgg attacccag 120
50 gaggagttt atggcaacca gttccagaag gctcaagcca tctctgtcct ccatgagatg 180
atccagcaga cttcaatct cttcagcaca aagaactcat ctgctgctt ggatgagacc 240
ctcctagaaa aattttccac tgaaccttac cagcaactgta ataacctgga agcatgtgt 300
atacaggagg ttgggatggg agagactccc ctgatgaatg tggactccat cttggctgt 360
aagggaaatact tccaaagaat cactcttat ctgacagaga agaagtatag cccttgcgtcc 420
55 tgggaggttgc tcagagcaga aatcatgaga tctttctt tttcaacaaa cttgcaaaaa 480
agattaagga ggaaggaa 498

<210> 16

<211> 498

<212> DNA
<213> Artificial Sequence

5 <220>
<223> Description of Artificial Sequence: Synthetic DNA

<220>
<223> Clone ID 2F8

10 <400> 16
tgtgatctgc ctcagaccca cagccttgg aacaggaggg ccttgatact cctggcacaa 60
atgggaccaa tctccctt ctcctgcctg aaggacagat atgatttcgg attccccag 120
gaggagttt atggcaacca gttccagaag gctcaagcga tctctgcctt ccatgagatg 180
atgcagcaga ccttcaatct cttcagcaca aagaactcat ctgctgctt ggatgagacc 240
15 ctcctagaaa aattttccac tgaactttac cagcaactga atgaacttgg agcatgtgtg 300
atacaggagg ttgggggttga agagactccc ctgatgaatg aggactccat cctggctgtg 360
aagaaatact tccaaagaat cactcttat ctgacagaga agaagtatag cccttggcc 420
tgggaggttgc tcagagcaga aatcatgaga tctttctt tttcaacaaa cttgcaaaaa 480
agattaagga ggaaggaa 498

20 <210> 17
<211> 498
<212> DNA
<213> Artificial Sequence

25 <220>
<223> Description of Artificial Sequence: Synthetic DNA

<220>
30 <223> Clone ID 6CG3

<400> 17
tgtgatctgc ctcagaccca cagccttgg aacaagaggg ccatgatgct cctggcacaa 60
atgggaagaa cctccctt ctcctgcctg aaggacagac atgactttgg attccccag 120
35 gaggagttt atggcaacca gttccagagg gctcaagcga tctttgcctt ccatgagatg 180
atccagcaga ctttcaattt cttcagcaca aaggactcat ctgctgctt ggaacagagc 240
ctcctagaaa aattttccac tgaacttaac cagcagctga atgaccttgg agcctgcgtg 300
atacaggaag ttgggggttga agagactccc ctgatgaatg aggactccat cctggctgtg 360
40 aagaaatact tccaaagaat cactcttat ctgacagaga agaaatacag cccttggcc 420
tgggaggttgc tcagagcaga aatcatgaga tctttctt tttcaacaaa cttgcaaaaa 480
agattaagga ggaaggaa 498

<210> 18
<211> 498
45 <212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic DNA

50 <220>
<223> Clone ID 3CG7

<400> 18
55 tgtgatctgc ctcagaccca cagccttgg aacagtaggg ccttgatgct cctggcacaa 60
atgggaagaa tctccctt ctcctgcctg aaggacagac atgatttcgg attccccag 120
gaggagttt atggcaacca gttccagaag gctcaagcga tctctgcctt ccatgagatg 180
atccagcaga ctttcaatct cttcagcaca aaggattcat ctgctgctt ggaacagaac 240
ctcctagaaa aattttccac tgaactttac cagcaactga ataaccttgg agcatgtgtg 300

atacaggagg ttgggatgga agagactccc ctgatgaatg tggactccat cctggctgtg 360
aggaagtact tccaaagaat cactcttat ctaatagaga gaaatacag cccttgc 420
tgggaggttg tcagagcaga aatcatgaga tcttcctt tttcaacaaa cttgcaaaaa 480
agattaagga ggaaggaa 498

5 <210> 19
<211> 498
<212> DNA
<213> Artificial Sequence

10 <220>
<223> Description of Artificial Sequence: Synthetic DNA

15 <220>
<223> Clone ID 1D3

<400> 19
tgtgatctgc ctcagaccca cagccttgg aacaggagg ccttgatact cctggcacaa 60
atggaaagaa tctctcattt ctcctgcctg aaggacagac atgatttcgg attccccag 120
20 gaggagttt atggccacca gttccagaag actcaagcca tctctgtcct ccatgagatg 180
atccagcaga ccttcaatct cttcagcaca aaggactcat ctgctgctt ggaacagagc 240
ctcctagaaa aattttccac tgaactttac cagcaactga atgacctgga agcatgtgtg 300
atacaggagg ttggggtgga agagactccc ctgatgaatg aggactccat cttggctgtg 360
25 aagaaatact tccaaagaat cactcttat ctgatggaga agaaatacag cccttgc 420
tgggaggttg tcagagcaga aatcatgaga tcttcctt tttcaacaaa cttgcaaaaa 480
agattaagga ggaaggaa 498

<210> 20
<211> 498
30 <212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic DNA

35 <220>
<223> Clone ID 2G4

<400> 20
tgtgatctgc ctcagaccca cagccttgg aacaggagg ccatgatgct cctggcacaa 60
atgagcaga tctctccttc ctcctgtctg atggacagac atgacttga atttccccag 120
gaggaattt atgataaaca gttccagaag gtcgcggcca tctctgtcct ccatgaggtg 180
attcagcaga ccttcaatct cttcagcaca gaggactcat ctgctgctt ggaacagacc 240
40 ctcctagaaa aattttccac tgaactttac cagcaactga atgacctgga agcatgtgtg 300
atgcaggagg agaggggtggg agaaactccc ctgatgaatg cggactccat cttggctgtg 360
45 agaaatact tccaaagaat cactcttat ctgacaaaaga agaagtatag cccttgc 420
tgggaggttg tcagagcaga aatcatgaga tcttcctt tttcaacaaa cttgcaaaaa 480
agattaagga ggaaggaa 498

50 <210> 21
<211> 498
<212> DNA
<213> Artificial Sequence

55 <220>
<223> Description of Artificial Sequence: Synthetic DNA

<220>
<223> Clone ID 1A1

5 <400> 21
tgcgtatctgc ctcagaccca cagccttggg aacaggaggg ctttgataact cctggcacaa 60
atgggaagaa tctctcattt ctcctgcctg aaggacagat atgatttcgg attccccag 120
gagggtttg atggcaacca gttccagaag gcccaagcca tctctgcctt ccatgagatg 180
atgcagcaga ctttcaatct cttcagcaca gaggactcat ctgctgcttg ggaacagagc 240
ctcctagaaa aattttccac tgaacttcac cagcaactga atgacctgga agcctgtgtg 300
atacaggagg ttgggggtgga agagactccc ctgatgaatg aggactccat cctggctgtg 360
agaaaatact tccaaagaat cactcttat ctaatggaga agaaatacag cccttgcgcc 420
10 tgggaggttg tcagagcaga aatcatgaga tctttctt tttcaacaaa cttgcaaaaa 480
agattaagga ggaaggaa 498

15 <210> 22
<211> 498
<212> DNA
<213> Artificial Sequence

20 <220>
<223> Description of Artificial Sequence: Synthetic DNA

25 <220>
<223> Clone ID 1D10

30 <400> 22
25 tgcgtatctgc ctcagaccca cagccttggg aacaggaggg ctttgataact cctggcacaa 60
atgggaagaa tctctcattt ctcctgcctg aaggacagac atgatttcgg attccccag 120
gaggagttt gatggccacca gttccagaag actcaagcca tctctgcctt ccatgagatg 180
atccagcaga ctttcaatct cttcagcaca aaggactcat ctgctgcttg ggaacagagc 240
ctcctagaaa aattttccac tgaacttac cagcaactga atgacctgga agcatgtgtg 300
atacaggagg ttgggggtgga agagactccc ctgatgaatg aggactccat cctggctgtg 360
aagaaaatact tccaaagaat cactcttat ctgatggaga agaaatacag cccttgcgcc 420
tgggaggttg tcagagcaga aatcatgaga tctttctt tttcaacaaa cttgcaaaaa 480
agattaagga ggaaggaa 498

35 <210> 23
<211> 498
<212> DNA
<213> Artificial Sequence

40 <220>
<223> Description of Artificial Sequence: Synthetic DNA

45 <220>
<223> Clone ID 1F6

50 <400> 23
45 tgcgtatctgc ctcagaccca cagccttggg aacaggagga ctttgatgt aatggcacaa 60
atgggaagaa tctctcctt ctcctgcctg aaggacagac atgactttgg atttccccag 120
gaggagttt gatggcaacca gttccagaag gctcaagcca tctctgcctt ccatgagatg 180
atccagcaga ctttcaatct cttcagcaca aaggactcat ctgctacttg ggaacagagc 240
ctcctagaaa aattttccac tgaacttaac cagcagctga atgacctgga agcctgcgtg 300
atacaggagg ctgggggtgga agagactccc ctgatgaatg tggactccat cctggctgtg 360
aagaaaatact tccaaagaat cactcttat ctaacagaga agaaatacag cccttgcgcc 420
tgggaggttg tcagagcaga aatcatgaga tctttctt tttcaacaaa cttgcaaaaa 480
55 agattaagga ggaaggaa 498

<210> 24
<211> 498
<212> DNA

09685180 • 1000600
<213> Artificial Sequence

5 **<220>**
5 **<223> Description of Artificial Sequence: Synthetic DNA**

10 **<220>**
10 **<223> Clone ID 2A10**

15 **<400> 24**
15 tgtgatctgc ctcagaccca cagccttgg aacaggaggg ccttgatact cctggcacaa 60
15 atgggaagaa tctctcattt ctccctgcctg aaggacagat atgatttcgg attccccag 120
15 gaggagtgg atggcaacca gttccagaag gctcaagcca tctctgcctt ccatgagatg 180
15 atccagcaga ccttcaatct cttcagcaca aaggactcat ctgctacttg ggaacagagc 240
15 ctcctagaaa aattttccac tgaactttac cagcaactga ataacctgga agcatgtgtg 300
15 atacaggagg ttgggggtgga agagactccc ctgatgaatg aggactccat cctggctgtg 360
15 agaaaatact ttccaaagaat cactcttat ctgatggaga agaaatacag cccttgcgcc 420
15 tgggaggttg tcagagcaga aatcatgaga tctttcttt tttcaacaaa cttgcaaaaa 480
15 agattaagga ggaaggaa 498

20 **<210> 25**
20 **<211> 498**
20 **<212> DNA**
20 **<213> Artificial Sequence**

25 **<220>**
25 **<223> Description of Artificial Sequence: Synthetic DNA**

30 **<220>**
30 **<223> Clone ID 2C3**

35 **<400> 25**
35 tgtgatctgc ctcagaccca cagccttgg aacaggaggg ccttgatact cctggcacaa 60
35 atgggaagaa tctctcctt ctccctgcctg aaggacagac atgactttgg atttcctcag 120
35 gaggagtgg atggcaacca gttccagaag gctcaagcca tctctgcctt ccatgagatg 180
35 atccagcaga ccttcaatct cttcagcaca aaggactcat ctgatacttg ggatgcgacc 240
35 cttttagaaa aattttccac tgaacttaac cagcagctga atgacctgga agcctgcgtg 300
35 atacaggagg ttgggggtgga agagacccccc ctgatgaatg tggactccat cctggctgtg 360
35 agaaaatact ttccaaagaat cactcttat ctgacagagaga agaaatacag cccttgcgcc 420
35 tgggaggttg tcagagcaga aatcatgaga tctttcttt tttcaacaaa cttgcaaaaa 480
35 agattaagga ggaaggaa 498

40 **<210> 26**
40 **<211> 498**
40 **<212> DNA**
40 **<213> Artificial Sequence**

45 **<220>**
45 **<223> Description of Artificial Sequence: Synthetic DNA**

50 **<220>**
50 **<223> Clone ID 2D1**

55 **<400> 26**
55 tgtgatctgc ctcagaccca cagccttgg aacaggaggg ccttgatact cctggcacaa 60
55 atgggacgaa tctctcctt ctccctgcctg aaggacagac aagactttgg attccccag 120
55 gaggagtgg atggcaacccg gttccagaag gctcaagcca tctctgcctt ccatgagatg 180
55 atccagcaga ccttcaatct cttcagcaca aagaactcat ctgctgcttg ggaacagagc 240
55 ctcctagaaa aattttccac tgaactctac cagcagctga atgacctgga agcctgcgtg 300
55 atacaggagg ttgggggtgga agagacccccc ctgatgaatg aggactccat cctggctgtg 360

aagaaaatact tccaaagaat cactcttat ctaatagaga gaaaaatacag cccttgca 420
tgggagggttgc agatcatgaga tctttctt tttcaacaaa cttgcaaaaa 480
agattaagga ggaaggaa 498

5 <210> 27
<211> 498
<212> DNA
<213> Artificial Sequence

10 <220>
<223> Description of Artificial Sequence: Synthetic DNA

<220>
<223> Clone ID 2D10

15 <400> 27
tgtgatctgc ctcaaaaaa cagccttgggt aacaggaggg cttgtataact cctggcacaa 60
atggaaagag tcttcctt ctcctgcctg aaggacagac atgactttgg attccccag 120
gaggagtttgc atggcaacca gttccagaag gctcaagcca tctctgcctt ccatgagatg 180
20 atccagcaga cttcaatct cttcagcaca aaggactcat ctgctacttg ggaacagagc 240
ctcctagaaa aattttccac tgaactttac cagcaactga ataaccttggaa agcctgcgtg 300
atacaggagg ttgggggttggaa agagactccc ctgatgaatg tggactccat cctggctgtg 360
aagaaaatact tccaaagaat cactcttat ctgacagaga gaaaaatacag cccttgca 420
tgggagggttgc agatcatgaga tctttctt tttcaacaaa cttgcaaaaa 480
25 agattaagga ggaaggaa 498

<210> 28
<211> 498
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic DNA

35 <220>
<223> Clone ID 2D7

<400> 28
tgtgatctgc ctcaaaaaa cagccttgggt aacaggcggtt cttgtataact cctggcacaa 60
40 atggaaagaa tcttcctt ctcctgcctg aaggacagac atgacttcag atttccccag 120
gaggagtttgc atggcaacca gttccagaag gctcaagcca tctctgcctt ccatgagatg 180
atccagcaga cttcaatct cttcagcaca aaggactcat ctgctacttg ggaacagagc 240
ctcctagaaa aattttccac tgaactttac cagcaactga ataaccttggaa agcctgcgtg 300
atacaggagg ttgggggttggaa agagactccc ctgatgaatg tggactctat cctggctgtg 360
45 aagaaaatact tccaaagaat cactcttat ctgacagaga gaaaaatacag cccttgca 420
tgggagggttgc agatcatgaga tctttctt tttcaacaaa cttgcaaaaa 480
agattaagga ggaaggaa 498

50 <210> 29
<211> 498
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic DNA

<220>
<223> Clone ID 2D9

5 <400> 29
tgcgtatctgc ctcagaccca cagccttggt aacaggaggg cttgtataact cctggcacaa 60
atgggaagaa tcttccttt ctccctgcctg aaggacagac atgactttgg attccccccag 120
gaggagttt atggcaacca gttccagaag gctcaagcca tctctgtcct ccatgagatg 180
atccagcaga cttcaatct ttccagcaca aaggactcat ctgctacttg ggaacagagc 240
ctcctagaaa aattttccac tgaacttaac cagcagctga atgacctgga agcctgcgtg 300
atacaggagg ttgggttggg agagactccc ctggtaatg tggactccat cctggctgtg 360
aagaaatact tccaaagaat cactcttat ctgacagaga agaaatacag cccttgtgcc 420
tgggaggttgg tcagagcaga aatcatgaga tctttctt tttcaacaaa cttgcaaaaa 480
agattaagga ggaaggaa 498

10 <210> 30
<211> 498
<212> DNA
15 <213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic DNA

20 <220>
<223> Clone ID 2DA2

<400> 30
tgcgtatctgc ctcagaccca cagccttggt aacaggaggg cttgtataact cctggcacaa 60
atgggaagaa tcttccttt ctccctgcctg aaggacagac aggacttcgg attccccccag 120
gaggagttt atggcaacca gttccagaag gctcaagcca tctctgtcct ccatgagatg 180
atgcagcaga cttcaatct ttccagcaca aagaactcat ctgctgcgtg ggaacagagc 240
ctcctagaaa aattttccac tgaactccac cagcaactga atgaaactgga agcatgtgtg 300
atacaggagg ttgggttggg agagactccc ctgatgaatg tggactccat cctggctgtg 360
aagaaatact tccaaagaat cactcttat ctaatagaga ggaaatacag cccttgtgca 420
tgggaggttgg tcagagcaga aatcatgaga tctttctt tttcaacaaa cttgcaaaaa 480
agattaagga ggaaggaa 498

25 <210> 31
<211> 498
<212> DNA
30 <213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic DNA

35 <220>
<223> Clone ID 2DH9

40 <400> 31
tgcgtatctgc ctcagaccca cagcccttggt aacaggaggg cttgtatgct cctggcacaa 60
atgggaccaa tcttccttt ctccctgcctg aaggacagat atgatttcgg attccccccag 120
ggggagttt atggcaacca gttccagaag gctcaagcca tctctgtcct ccatgagatg 180
atgcagcaga cttcaatct ttccagcaca aaggattcat ctgctgcgtg ggaacagagc 240
50 <210> 32
ctcctagaaa aattttccac tgaactctac cggcagctga atgacctgga agcctgtgtg 300
atacaggagg ttgggttggg agagacccc ctgatgaatg tggactccat cctggctgtg 360
aggaagtact tccaaagaat cactcttat ctgacagaga agaagcatag cccttgttcc 420
tgggaggttgg tcagagcaga aatcatgaga tctttctt tttcaacaaa cttgcaaaaa 480
agattaagga ggaaggaa 498

45 <210> 32
<211> 498
<212> DNA
55 <213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic DNA

5 <220>
<223> Clone ID 2G11

<400> 32
tgtgatctgc ctcagaccca cagccttgtt aacaggaggg ctttgataact cctggcacaa 60
10 atgggaagaa tctctccctt ctcctgcctg aaggacagac atgactttgg attccccag 120
gaggagttt atggcaacca gttccagaag actcaagcca tctctgtcct ccatgagatg 180
atccagcaga ctttcaatct cttcagcaca aaggactcat ctgatacttg ggaacagagc 240
ctcctagaaa aattctacat tgaactttc cagcagctga atgacacctgga agcctgcgtg 300
15 atacaggagg ttggggtgttga agagactccc ctgatgaatg tggactccat cttggctgtg 360
agaaaatact tccaaagaat cactcttat ctgacagagg agaaaatacag cccttgcgcc 420
tgggagggttgc tcagagcaga aatcatgaga tctttctt tttcaacaaa cttgcaaaaa 480
agattaagga ggaaggaa 498

20 <210> 33
<211> 498
<212> DNA
<213> Artificial Sequence

<220>
25 <223> Description of Artificial Sequence: Synthetic DNA

<220>
<223> Clone ID 2G12

30 <400> 33
tgtgatctgc ctcagaccca cagccttgtt aacaggaggg ctttgatgct catggcacaa 60
atgaggagaa tctctccctt ccccccgcctg aaggacat atgatttcgg attccccag 120
gagggtttt atggcaacca gttccagaag gctcaagcta tcttcctttt ccatgagatg 180
35 atgcagcaga ctttcaatct cttcagcaca aagaactcat ctgctgttg ggatgagacc 240
ctcctagaca aattctacac tgaactctac cagcagctga atgacttgga agcctgtgtg 300
atgcaggagg ggagggttggg agaaaactccc ctgatgaatg cgactccat cttggctgtg 360
aagaaaatact tccaaagaat cactcttat ctgacagagg agaaaatacag cccttgcgcc 420
tgggaggctg tcagagcaga aatcatgaga tctttctt tttcaacaaa cttgcaaaaa 480
40 agattaagga ggaaggaa 498

<210> 34
<211> 498
<212> DNA
<213> Artificial Sequence

45 <220>
<223> Description of Artificial Sequence: Synthetic DNA

<220>
50 <223> Clone ID 2H9

<400> 34
tgtgatctgc ctcagaccca cagccttgtt aacaggaggg ctttgataact cctggcacaa 60
55 atgggaagaa tctctccctt ctcctgcctg aaggacagac atgactttgg attccccag 120
gaggagttt atggcaacca gttccagaag gctcaagcca tctctgtcct ccatgagatg 180
atccagcaga ctttcaatct cttcagcaca aaggactcat ctgctacttg ggaacagagc 240
ctcctagaaa aattttccac tgaacttaac cagcagctga atgacacctgaa agcctgtgtg 300
acacaggagg ttggggtgttga agagactccc ctgatgaatg aggactctat cttggctgtg 360
aagaaaatact tccaaagaat cactcttat ctgacagagg agaaaatacag cccttgcgcc 420

096851865200600

tgggagggttgcagagcaga aatcatgaga tctttctctt tttcaacaaa cttgcaaaaa 480
agattaagga ggaaggaa 498

5 <210> 35
<211> 498
<212> DNA
<213> Artificial Sequence

10 <220>
<223> Description of Artificial Sequence: Synthetic DNA

<220>
<223> Clone ID 6BC11

15 <400> 35
tgtgatctgc ctcagaccca cagccttgg aacaggaggg ccttgatact cctggcacaa 60
atggaaagaa tctctccctt ctcctgcctg aaggacagat atgatttcgg attccccag 120
gaggagttt atggcaacca gctccagaag gctcaaggca tctctgtcct ccatgagatg 180
atccagcaga cttcaatct cttcagcaca aaggattcat ctgctgcttg ggaacagagc 240
20 ctcctagaaa aattttccac tgaacttaac cagcagctga atgacaccttga agcctgcgtg 300
atacaggagg ttggagtgg aagagactccc ctgatgaatg tggactccat cctggctgtg 360
aagaaatact tccaaagaat cactcttat ctgacagaga ggaaatacag cccttgcc 420
tgggagggttgcagagcaga aatcatgaga tctttctctt tttcaacaaa cttgcaaaaa 480
agattaagga ggaaggaa 498

25 <210> 36
<211> 166
<212> PRT
<213> Artificial Sequence

30 <220>
<223> Description of Artificial Sequence: Synthetic amino acid

<220>
<223> Clone ID 2DH12

<400> 36
Cys Asp Leu Pro Gln Thr His Ser Leu Gly Asn Arg Arg Ala Leu Met
1 5 10 15

40 Leu Leu Ala Gln Met Gly Arg Ile Ser Pro Phe Ser Cys Leu Lys Asp
20 25 30

Arg Gln Asp Phe Gly Phe Pro Gln Glu Glu Phe Asp Gly Asn Gln Phe
45 35 40 45

Gln Lys Ala Gln Ala Ile Ser Val Leu His Glu Met Ile Gln Gln Thr
50 55 60

50 Phe Asn Leu Phe Ser Thr Lys Asp Ser Ser Ala Ala Trp Glu Gln Thr
65 70 75 80

Leu Leu Glu Lys Phe Ser Thr Glu Leu Tyr Gln Gln Leu Asn Asp Leu
85 90 95

55 Glu Ala Cys Val Ile Gln Glu Val Gly Val Lys Glu Thr Pro Leu Met
100 105 110

Asn Val Asp Ser Ile Leu Ala Val Arg Lys Tyr Phe Gln Arg Ile Thr

115

120

125

Leu Tyr Leu Ile Glu Arg Lys Tyr Ser Pro Cys Ala Trp Glu Val Val
130 135 140

5 Arg Ala Glu Ile Met Arg Ser Phe Ser Phe Ser Thr Asn Leu Gln Lys
145 150 155 160

10 Arg Leu Arg Arg Lys Glu
165

<210> 37

<211> 166

15 <212> PRT

<213> Artificial Sequence

<220>

20 <223> Description of Artificial Sequence: Synthetic amino acid

<220>

<223> Clone ID 2CA3

<400> 37

25 Cys Asp Leu Pro Gln Thr His Ser Leu Gly Asp Arg Arg Ala Met Ile
1 5 10 15

Leu Leu Ala Gln Met Gly Arg Ile Ser Pro Phe Ser Cys Leu Lys Asp
20 25 30

30 Arg Tyr Asp Phe Gly Phe Pro Gln Glu Glu Phe Asp Gly Asn Gln Phe
35 40 45

35 Gln Lys Ala Gln Ala Ile Ser Val Leu His Glu Met Ile Gln Gln Thr
50 55 60

Phe Asn Leu Phe Ser Thr Lys Asp Ser Ser Ala Ala Trp Glu Gln Ser
65 70 75 80

40 Leu Leu Glu Lys Phe Ser Thr Glu Leu Tyr Gln Gln Leu Asn Glu Leu
85 90 95

Glu Ala Cys Val Ile Gln Glu Val Gly Val Gly Glu Thr Pro Leu Met
100 105 110

45 Asn Gly Asp Ser Ile Leu Ala Val Lys Lys Tyr Phe Gln Arg Ile Thr
115 120 125

50 Leu Tyr Leu Ile Glu Arg Lys Tyr Ser Pro Cys Ala Trp Glu Val Val
130 135 140

Arg Ala Glu Ile Met Arg Ser Phe Ser Phe Ser Thr Asn Leu Gln Lys
145 150 155 160

55 Arg Leu Arg Arg Lys Glu
165

<210> 38

09685186 - 100600

<211> 166
<212> PRT
<213> Artificial Sequence

5 <220>
<223> Description of Artificial Sequence: Synthetic amino acid

<220>
<223> Clone ID 4AB9

10 <400> 38
Cys Asp Leu Pro Gln Thr His Ser Leu Gly Asn Arg Arg Ala Leu Ile
1 5 10 15

15 Leu Leu Ala Gln Met Gly Arg Ile Ser Pro Phe Ser Cys Leu Lys Asp
20 25 30

Arg His Asp Phe Gly Phe Pro Arg Glu Glu Phe Asp Gly Asn Gln Phe
35 40 45

20 Gln Lys Ala Gln Ala Ile Ser Val Leu His Glu Met Met Gln Gln Thr
50 55 60

25 Phe Asn Leu Phe Ser Thr Lys Asn Ser Ser Ala Ala Trp Asp Glu Thr
65 70 75 80

Leu Leu Glu Lys Phe Ser Thr Glu Leu Tyr Gln Gln Leu Asn Glu Leu
85 90 95

30 Glu Ala Cys Val Ile Gln Glu Val Gly Val Glu Glu Thr Pro Leu Met
100 105 110

Asn Glu Asp Ser Ile Leu Ala Val Lys Lys Tyr Phe Gln Arg Ile Thr
115 120 125

35 Leu Tyr Leu Thr Glu Lys Lys Tyr Ser Pro Cys Ser Trp Glu Val Val
130 135 140

40 Arg Ala Glu Ile Met Arg Ser Phe Ser Phe Ser Thr Asn Leu Gln Lys
145 150 155 160

Arg Leu Arg Arg Lys Glu
165

45 <210> 39
<211> 166
<212> PRT
<213> Artificial Sequence

50 <220>
<223> Description of Artificial Sequence: Synthetic amino acid

<220>
<223> Clone ID 2DA4

<400> 39
Cys Asp Leu Pro Gln Thr His Ser Leu Gly Asn Arg Arg Ala Leu Met
1 5 10 15

02685185 = 100600

Leu Leu Ala Gln Met Gly Arg Ile Ser Pro Phe Ser Cys Leu Lys Asp
20 25 30

5 Arg Gln Asp Phe Gly Phe Pro Gln Glu Glu Phe Asp Ser Asn Gln Phe
35 40 45

Gln Lys Ala Gln Ala Ile Ser Val Leu His Glu Met Met Gln Gln Thr
50 55 60

10 Phe Asn Leu Phe Ser Thr Lys Asp Ser Ser Ala Ala Trp Asp Glu Thr
65 70 75 80

Leu Leu Glu Lys Phe Ser Thr Glu Leu Tyr Gln Gln Leu Asn Asp Leu
15 85 90 95

Glu Ala Cys Val Ile Gln Glu Val Gly Val Glu Glu Thr Pro Leu Met
100 105 110

20 Asn Val Asp Ser Ile Leu Ala Val Arg Lys Tyr Phe Gln Arg Ile Thr
115 120 125

Leu Tyr Leu Ile Glu Arg Lys Tyr Ser Pro Cys Ala Trp Glu Val Val
130 135 140

25 Arg Ala Glu Ile Met Arg Ser Phe Ser Phe Ser Thr Asn Leu Gln Lys
145 150 155 160

Arg Leu Arg Arg Lys Glu
30 165

<210> 40
<211> 166
35 <212> PRT
<213> Artificial Sequence

<220>
40 <223> Description of Artificial Sequence: Synthetic amino acid
45 <220>
<223> Clone ID 3DA11

<400> 40
45 Cys Asp Leu Pro Gln Thr His Ser Leu Gly Asn Arg Arg Ala Leu Val
1 5 10 15

Leu Leu Ala Gln Met Gly Arg Ile Ser Pro Phe Ser Cys Leu Lys Asp
20 25 30

50 Arg Tyr Asp Phe Gly Phe Pro Gln Glu Glu Phe Asp Gly Asn Gln Phe
35 40 45

Gln Lys Ala Gln Ala Ile Ser Val Leu His Glu Met Ile Gln Gln Thr
55 50 55 60

Phe Asn Leu Phe Ser Thr Lys Asp Ser Ser Ala Ala Trp Asp Glu Thr
65 70 75 80

DECEMBER 1990

Leu Leu Glu Lys Phe Ser Thr Glu Leu Tyr Gln Gln Leu Asn Asp Leu
85 90 95

5 Glu Ala Cys Val Ile Gln Glu Val Gly Val Glu Glu Thr Pro Leu Met
100 105 110

Asn Glu Asp Ser Ile Leu Ala Val Lys Lys Tyr Phe Gln Arg Ile Thr
115 120 125

10 Leu Tyr Leu Ile Glu Arg Lys Tyr Ser Pro Cys Ala Trp Glu Val Val
130 135 140

Arg Ala Glu Ile Met Arg Ser Phe Ser Phe Ser Thr Asn Leu Gln Lys
145 150 155 160

15 Arg Leu Arg Arg Lys Glu
165

20 <210> 41
<211> 166
<212> PRT
<213> Artificial Sequence

25 <220>
<223> Description of Artificial Sequence: Synthetic amino acid

<220>
<223> Clone ID 2DB11

30 <400> 41
Cys Asp Leu Pro Gln Thr His Ser Leu Gly Asn Arg Arg Ala Leu Met
1 5 10 15

35 Leu Leu Ala Gln Met Gly Arg Ile Ser Pro Phe Ser Cys Leu Lys Asp
20 25 30

Arg Tyr Asp Phe Gly Phe Pro Gln Glu Glu Phe Asp Gly Asn Gln Phe
35 40 45

40 Gln Lys Ala Gln Ala Ile Ser Val Leu His Glu Met Ile Gln Gln Thr
50 55 60

45 Phe Asn Leu Phe Ser Thr Lys Asp Ser Ser Ala Ala Trp Asp Glu Thr
65 70 75 80

Leu Leu Glu Lys Phe Ser Thr Glu Leu Tyr Gln Gln Leu Asn Asp Leu
85 90 95

50 Glu Ala Cys Val Ile Gln Glu Val Gly Val Glu Glu Thr Pro Leu Met
100 105 110

Asn Val Asp Ser Ile Leu Ala Val Arg Lys Tyr Phe Gln Arg Ile Thr
115 120 125

55 Leu Tyr Leu Ile Glu Arg Lys Tyr Ser Pro Cys Ala Trp Glu Val Val
130 135 140

Arg Ala Glu Ile Met Arg Ser Phe Ser Phe Ser Thr Asn Leu Gln Lys
140

145 150 155 160

Arg Leu Arg Arg Lys Glu
165

5

<210> 42
<211> 166
<212> PRT
10 <213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic amino acid

15 <220>
<223> Clone ID 2CA5

<400> 42
Cys Asp Leu Pro Gln Thr His Ser Leu Gly Asn Arg Arg Ala Leu Ile
20 1 5 10 15

Leu Leu Ala Gln Met Gly Arg Ile Ser Pro Phe Ser Cys Leu Lys Asp
20 25 30

25 Arg Gln Asp Phe Gly Phe Pro Gln Glu Glu Phe Asp Gly Asn Arg Phe
35 40 45

Gln Lys Ala Gln Ala Ile Ser Val Leu His Glu Met Ile Gln Gln Thr
50 55 60

30 Phe Asn Leu Phe Ser Thr Lys Asn Ser Ser Ala Ala Trp Glu Gln Ser
65 70 75 80

Leu Leu Glu Lys Phe Ser Thr Glu Leu Tyr Gln Gln Leu Asn Asp Leu
35 85 90 95

Glu Ala Cys Val Ile Gln Glu Val Gly Val Glu Glu Thr Pro Leu Met
100 105 110

40 Asn Glu Asp Ser Ile Leu Ala Val Lys Lys Tyr Phe Gln Arg Ile Thr
115 120 125

Leu Tyr Leu Ile Glu Arg Lys Tyr Ser Pro Cys Ala Trp Glu Val Val
130 135 140

45 Arg Ala Glu Ile Met Arg Ser Phe Ser Phe Ser Thr Asn Leu Gln Lys
145 150 155 160

50 Arg Leu Arg Arg Lys Glu
165

<210> 43
<211> 166
<212> PRT
55 <213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic amino acid

09685189-100600
<220>
<223> Clone ID 2G6

5 <400> 43
Cys Asp Leu Pro Gln Thr His Ser Leu Gly Asn Arg Arg Ala Leu Ile
 1 5 10 15

Leu Leu Ala Gln Met Gly Arg Ile Ser Pro Phe Ser Cys Leu Lys Asp
10 20 25 30

Arg His Asp Phe Gly Phe Pro Gln Glu Glu Phe Asp Gly Asn Gln Phe
 35 40 45

15 Gln Lys Ala Gln Ala Ile Ser Val Leu His Glu Met Ile Gln Gln Thr
 50 55 60

Phe Asn Leu Phe Ser Thr Lys Asp Ser Ser Ala Thr Trp Glu Gln Ser
20 65 70 75 80

Leu Leu Glu Lys Phe Ser Thr Glu Leu Asn Gln Gln Leu Asn Asp Leu
 85 90 95

25 Glu Ala Cys Val Ile Gln Glu Val Gly Val Glu Glu Thr Pro Leu Met
 100 105 110

Asn Val Asp Pro Ile Leu Ala Val Lys Lys Tyr Phe Gln Arg Ile Thr
 115 120 125

30 Leu Tyr Leu Thr Glu Lys Lys Tyr Ser Pro Cys Ala Trp Glu Val Val
 130 135 140

Arg Ala Glu Ile Met Arg Ser Phe Ser Phe Ser Thr Asn Leu Gln Lys
35 145 150 155 160
Arg Leu Arg Arg Lys Glu
 165

40 <210> 44
 <211> 166
 <212> PRT
 <213> Artificial Sequence

45 <220>
 <223> Description of Artificial Sequence: Synthetic amino acid

 <220>
 <223> Clone ID 3AH7

50 <400> 44
Cys Asp Leu Pro Gln Thr His Ser Leu Gly Asn Arg Arg Ala Leu Ile
 1 5 10 15

55 Leu Leu Ala Gln Met Arg Arg Ile Ser Pro Phe Ser Cys Leu Lys Asp
 20 25 30

Arg His Asp Phe Gly Phe Pro Gln Glu Glu Phe Asp Ser Asn Gln Phe
 35 40 45

Gln Lys Ala Gln Ala Ile Ser Val Leu His Glu Met Ile Gln Gln Thr
 50 55 60

5 Phe Asn Leu Phe Ser Thr Lys Asp Ser Ser Ala Ala Trp Glu Gln Ser
 65 70 75 80

Leu Leu Glu Lys Phe Ser Thr Glu Leu His Gln Gln Leu Asn Glu Leu
 10 85 90 95

Glu Ala Cys Val Val Gln Glu Val Gly Val Glu Glu Thr Pro Leu Met
 15 100 105 110

Asn Glu Asp Ser Ile Leu Ala Val Lys Lys Tyr Leu Gln Arg Ile Thr
 15 115 120 125

Leu Tyr Leu Thr Glu Lys Lys Tyr Ser Pro Cys Ala Trp Glu Val Val
 20 130 135 140

Arg Ala Glu Ile Met Arg Ser Phe Ser Phe Ser Thr Asn Leu Gln Lys
 25 145 150 155 160

Arg Leu Arg Arg Lys Glu
 165

25 <210> 45
 <211> 166
 <212> PRT
 30 <213> Artificial Sequence

35 <220>
 <223> Description of Artificial Sequence: Synthetic amino acid

40 <220>
 <223> Clone ID 2G5

<400> 45
 45 Cys Asp Leu Pro Gln Thr His Ser Leu Gly Asn Arg Arg Ala Leu Met
 1 5 10 15

Leu Leu Ala Gln Met Gly Arg Ile Ser Pro Phe Ser Cys Leu Lys Asp
 50 20 25 30

45 Arg Gln Asp Phe Gly Phe Pro Gln Glu Glu Phe Asp Gly Asn Gln Phe
 35 40 45

Gln Lys Ala Gln Ala Ile Ser Val Leu His Glu Met Ile Gln Gln Thr
 50 55 60

55 Phe Asn Leu Phe Ser Thr Lys Asp Ser Ser Ala Ala Trp Glu Gln Ser
 65 70 75 80

Leu Leu Glu Lys Phe Ser Thr Glu Leu Tyr Gln Gln Leu Asn Asp Leu
 55 85 90 95

Glu Ala Cys Val Ile Gln Glu Val Gly Val Glu Glu Thr Pro Leu Met
 60 100 105 110

09688189-100600

Asn Val Asp Ser Ile Leu Ala Val Arg Lys Tyr Phe Gln Arg Ile Thr
115 120 125

5 Leu Tyr Leu Ile Glu Arg Lys Tyr Ser Pro Cys Ala Trp Glu Val Val
130 135 140

Arg Ala Glu Ile Met Arg Ser Phe Ser Phe Ser Thr Asn Leu Gln Lys
145 150 155 160

10 Arg Leu Arg Arg Lys Glu
165

15 <210> 46
<211> 166
<212> PRT
<213> Artificial Sequence

20 <220>
<223> Description of Artificial Sequence: Synthetic amino acid

25 <220>
<223> Clone ID 2BA8

30 <400> 46
Cys Asp Leu Pro Gln Thr His Ser Leu Gly Asn Arg Arg Ala Leu Ile
1 5 10 15

Leu Leu Ala Gln Met Gly Arg Ile Ser Pro Phe Ser Cys Leu Lys Asp
30 20 25 30

Arg Tyr Asp Phe Gly Phe Pro Gln Glu Glu Phe Asp Gly Asn Gln Phe
35 40 45

35 Gln Lys Ala Gln Ala Ile Ser Val Leu His Glu Met Ile Gln Gln Thr
50 55 60

40 Phe Asn Leu Phe Ser Thr Lys Asp Ser Ser Ala Ala Trp Glu Gln Ser
65 70 75 80

Leu Leu Glu Lys Phe Ser Thr Glu Leu Tyr Gln Gln Leu Asn Asp Leu
85 90 95

45 Glu Ala Cys Val Ile Gln Glu Val Gly Val Glu Glu Thr Pro Leu Met
100 105 110

Asn Val Asp Ser Ile Leu Ala Val Arg Lys Tyr Phe Gln Arg Ile Thr
115 120 125

50 Leu Tyr Leu Ile Glu Arg Lys Tyr Ser Pro Cys Ala Trp Glu Val Val
130 135 140

Arg Ala Glu Ile Met Arg Ser Phe Ser Phe Ser Thr Asn Leu Gln Lys
145 150 155 160

55 Arg Leu Arg Arg Lys Glu
165

0968180-100600

5 <210> 47
 <211> 166
 <212> PRT
 <213> Artificial Sequence

10 <220>
 <223> Description of Artificial Sequence: Synthetic amino acid

15 <220>
 <223> Clone ID 1F3

20 <400> 47
 Cys Asp Leu Pro Gln Thr His Ser Leu Gly Asn Arg Arg Ala Leu Ile
 1 5 10 15

25 Leu Leu Gly Gln Met Gly Arg Ile Ser His Phe Ser Cys Leu Lys Asp
 20 25 30

30 Arg His Asp Phe Gly Phe Pro Gln Glu Glu Phe Asp Gly Asn Gln Phe
 35 40 45

35 Gln Lys Ala Gln Ala Ile Ser Val Leu His Glu Met Ile Gln Gln Thr
 50 55 60

40 Phe Asn Leu Phe Ser Thr Lys Asp Ser Ser Val Ala Trp Asp Glu Arg
 65 70 75 80

45 Leu Leu Asp Lys Leu Tyr Thr Glu Leu Tyr Gln Gln Leu Asn Asp Leu
 85 90 95

50 Glu Ala Cys Val Met Gln Glu Val Trp Val Gly Gly Thr Pro Leu Met
 100 105 110

55 Asn Glu Asp Ser Ile Leu Ala Val Arg Lys Tyr Phe Gln Arg Ile Thr
 115 120 125

60 Leu Tyr Leu Thr Glu Lys Lys Tyr Ser Pro Cys Ala Trp Glu Val Val
 130 135 140

65 Arg Ala Glu Ile Met Arg Ser Phe Ser Phe Ser Thr Asn Leu Gln Lys
 145 150 155 160

70 Arg Leu Arg Arg Lys Glu
 165

75 45

80 <210> 48
 <211> 166
 <212> PRT
 <213> Artificial Sequence

85 <220>
 <223> Description of Artificial Sequence: Synthetic amino acid

90 <220>
 <223> Clone ID 4BE10

95 <400> 48
 Cys Asp Leu Pro Gln Thr His Ser Leu Gly Asn Arg Arg Ala Leu Ile
 145

DRAFT - 1000000

1	5	10	15
Leu Leu Ala Gln Met Gly Arg Ile Ser Pro Phe Ser Cys Leu Lys Asp			
	20	25	30
5	Arg Tyr Asp Phe Gly Phe Pro Gln Glu Glu Phe Asp Gly Asn Gln Phe		
	35	40	45
10	Gln Lys Ala Gln Ala Ile Ser Val Leu His Glu Ile Met Gln Gln Thr		
	50	55	60
	Phe Asn Leu Phe Ser Thr Lys Asn Ser Ser Ala Ala Trp Asp Glu Thr		
	65	70	75
15	80		
	Leu Leu Glu Lys Phe Ser Thr Glu Leu Tyr Gln Gln Leu Asn Glu Leu		
	85	90	95
	Glu Ala Cys Val Ile Gln Gly Val Gly Val Glu Glu Thr Pro Leu Met		
20	100	105	110
	Asn Glu Asp Ser Ile Leu Ala Val Arg Lys Tyr Phe Gln Arg Ile Thr		
	115	120	125
25	Leu Tyr Leu Thr Glu Lys Lys Tyr Ser Pro Cys Ser Trp Glu Val Val		
	130	135	140
	Arg Ala Glu Ile Met Arg Ser Phe Ser Phe Ser Thr Asn Leu Gln Lys		
	145	150	155
30	160		
	Arg Leu Arg Arg Lys Glu		
	165		
35	<210> 49		
	<211> 166		
	<212> PRT		
	<213> Artificial Sequence		
40	<220>		
	<223> Description of Artificial Sequence: Synthetic amino acid		
	<220>		
	<223> Clone ID 2DD9		
45	<400> 49		
	Cys Asp Leu Pro Gln Thr His Ser Leu Gly Asn Arg Arg Ala Leu Met		
	1	5	10
	15		
50	Leu Leu Ala Gln Met Gly Arg Ile Ser Pro Phe Ser Cys Leu Lys Asp		
	20	25	30
	Arg Tyr Asp Phe Gly Phe Pro Gln Glu Glu Phe Asp Gly Asn Gln Phe		
	35	40	45
55	Gln Lys Ala Gln Ala Ile Ser Val Leu His Glu Met Ile Gln Gln Thr		
	50	55	60
	Phe Asn Leu Phe Ser Thr Lys Asp Ser Ser Ala Ala Trp Glu Gln Ser		
	65	70	75
	80		

Leu Leu Glu Lys Phe Ser Thr Gly Leu Tyr Gln Gln Leu Asn Asp Leu
85 90 95

5 Glu Ala Cys Val Ile Gln Glu Val Gly Val Glu Glu Thr Pro Leu Met
100 105 110

Asn Glu Asp Ser Ile Leu Ala Val Lys Lys Tyr Phe Gln Arg Ile Thr
115 120 125

10 Leu Tyr Leu Thr Glu Lys Lys Tyr Ser Pro Cys Ser Trp Glu Val Val
130 135 140

Arg Ala Glu Ile Met Arg Ser Phe Ser Phe Ser Thr Asn Leu Gln Lys
145 150 155 160

Arg Leu Arg Arg Lys Glu
165

20 <210> 50
<211> 166
<212> PRT
<213> Artificial Sequence

25 <220>
<223> Description of Artificial Sequence: Synthetic amino acid

30 <220>
<223> Clone ID 3CA1

<400> 50
Cys Asp Leu Pro Gln Thr His Ser Leu Gly Asn Arg Arg Ala Leu Ile
1 5 10 15

35 Leu Leu Ala Gln Met Gly Arg Ile Ser Pro Phe Ser Cys Leu Lys Asp
20 25 30

40 Arg His Asp Phe Gly Leu Pro Gln Glu Glu Phe Asp Gly Asn Gln Phe
35 40 45

Gln Lys Ala Gln Ala Ile Ser Val Leu His Glu Met Ile Gln Gln Thr
50 55 60

45 Phe Asn Leu Phe Ser Thr Lys Asn Ser Ser Ala Ala Trp Asp Glu Thr
65 70 75 80

Leu Leu Glu Lys Phe Ser Thr Glu Leu Tyr Gln Gln Leu Asn Asn Leu
85 90 95

50 Glu Ala Cys Val Ile Gln Glu Val Gly Met Glu Glu Thr Pro Leu Met
100 105 110

Asn Val Asp Ser Ile Leu Ala Val Lys Lys Tyr Phe Gln Arg Ile Thr
55 115 120 125

Leu Tyr Leu Thr Glu Lys Lys Tyr Ser Pro Cys Ala Trp Glu Val Val
130 135 140

Arg Ala Glu Ile Met Arg Ser Phe Ser Phe Ser Thr Asn Leu Gln Lys
145 150 155 160

5 Arg Leu Arg Arg Lys Glu
165

<210> 51
<211> 166
10 <212> PRT
<213> Artificial Sequence

<220>
15 <223> Description of Artificial Sequence: Synthetic amino acid
<220>
<223> Clone ID 2F8

<400> 51
20 Cys Asp Leu Pro Gln Thr His Ser Leu Gly Asn Arg Arg Ala Leu Ile
1 5 10 15

Leu Leu Ala Gln Met Gly Arg Ile Ser Pro Phe Ser Cys Leu Lys Asp
25 20 25 30

Arg Tyr Asp Phe Gly Phe Pro Gln Glu Glu Phe Asp Gly Asn Gln Phe
35 40 45

Gln Lys Ala Gln Ala Ile Ser Val Leu His Glu Met Met Gln Gln Thr
30 50 55 60

Phe Asn Leu Phe Ser Thr Lys Asn Ser Ser Ala Ala Trp Asp Glu Thr
65 70 75 80

Leu Leu Glu Lys Phe Ser Thr Glu Leu Tyr Gln Gln Leu Asn Glu Leu
35 85 90 95

Glu Ala Cys Val Ile Gln Glu Val Gly Val Glu Glu Thr Pro Leu Met
40 100 105 110

Asn Glu Asp Ser Ile Leu Ala Val Lys Lys Tyr Phe Gln Arg Ile Thr
115 120 125

Leu Tyr Leu Thr Glu Lys Lys Tyr Ser Pro Cys Ser Trp Glu Val Val
45 130 135 140

Arg Ala Glu Ile Met Arg Ser Phe Ser Phe Ser Thr Asn Leu Gln Lys
145 150 155 160

50 Arg Leu Arg Arg Lys Glu
165

<210> 52
<211> 166
55 <212> PRT
<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic amino acid

<220>

<223> Clone ID 6CG3

5

<400> 52

Cys Asp Leu Pro Gln Thr His Ser Leu Gly Asn Lys Arg Ala Met Met
1 5 10 15

10 Leu Leu Ala Gln Met Gly Arg Thr Ser Pro Phe Ser Cys Leu Lys Asp
20 25 30

Arg His Asp Phe Gly Phe Pro Gln Glu Glu Phe Asp Gly Asn Gln Phe
35 40 45

15

Gln Arg Ala Gln Ala Ile Phe Val Leu His Glu Met Ile Gln Gln Thr
50 55 60

20 Phe Asn Phe Phe Ser Thr Lys Asp Ser Ser Ala Ala Trp Glu Gln Ser
65 70 75 80

Leu Leu Glu Lys Phe Ser Thr Glu Leu Asn Gln Gln Leu Asn Asp Leu
85 90 95

25 Glu Ala Cys Val Ile Gln Glu Val Gly Val Glu Glu Thr Pro Leu Met
100 105 110

Asn Glu Asp Ser Ile Leu Ala Val Lys Lys Tyr Phe Gln Arg Ile Thr
115 120 125

30

Leu Tyr Leu Thr Glu Lys Lys Tyr Ser Pro Cys Ala Trp Glu Val Val
130 135 140

35 Arg Ala Glu Ile Met Arg Ser Phe Ser Phe Ser Thr Asn Leu Gln Lys
145 150 155 160

Arg Leu Arg Arg Lys Glu
165

40

<210> 53

<211> 166

<212> PRT

<213> Artificial Sequence

45

<220>

<223> Description of Artificial Sequence: Synthetic amino acid

<220>

50 <223> Clone ID 3CG7

<400> 53

Cys Asp Leu Pro Gln Thr His Ser Leu Gly Asn Ser Arg Ala Leu Met
1 5 10 15

55

Leu Leu Ala Gln Met Gly Arg Ile Ser Pro Phe Ser Cys Leu Lys Asp
20 25 30

Arg His Asp Phe Gly Phe Pro Gln Glu Glu Phe Asp Gly Asn Gln Phe

35 40 45

Gln Lys Ala Gln Ala Ile Ser Ala Phe His Glu Met Ile Gln Gln Thr
50 55 60

5 Phe Asn Leu Phe Ser Thr Lys Asp Ser Ser Ala Ala Trp Glu Gln Asn
65 70 75 80

Leu Leu Glu Lys Phe Ser Thr Glu Leu Tyr Gln Gln Leu Asn Asn Leu
10 85 90 95

Glu Ala Cys Val Ile Gln Glu Val Gly Met Glu Glu Thr Pro Leu Met
100 105 110

15 Asn Val Asp Ser Ile Leu Ala Val Arg Lys Tyr Phe Gln Arg Ile Thr
115 120 125

Leu Tyr Leu Ile Glu Arg Lys Tyr Ser Pro Cys Ala Trp Glu Val Val
20 130 135 140

Arg Ala Glu Ile Met Arg Ser Phe Ser Phe Ser Thr Asn Leu Gln Lys
25 145 150 155 160

Arg Leu Arg Arg Lys Glu
25 165

<210> 54
<211> 166
30 <212> PRT
<213> Artificial Sequence

<220>
35 <223> Description of Artificial Sequence: Synthetic amino acid
<220>
<223> Clone ID 1D3

<400> 54
40 Cys Asp Leu Pro Gln Thr His Ser Leu Gly Asn Arg Arg Ala Leu Ile
1 5 10 15

Leu Leu Ala Gln Met Gly Arg Ile Ser His Phe Ser Cys Leu Lys Asp
45 20 25 30

Arg His Asp Phe Gly Phe Pro Gln Glu Glu Phe Asp Gly His Gln Phe
45 35 40 45

Gln Lys Thr Gln Ala Ile Ser Val Leu His Glu Met Ile Gln Gln Thr
50 50 55 60

Phe Asn Leu Phe Ser Thr Lys Asp Ser Ser Ala Ala Trp Glu Gln Ser
55 65 70 75 80

Leu Leu Glu Lys Phe Ser Thr Glu Leu Tyr Gln Gln Leu Asn Asp Leu
55 85 90 95

Glu Ala Cys Val Ile Gln Glu Val Gly Val Glu Glu Thr Pro Leu Met
60 100 105 110

Asn Glu Asp Ser Ile Leu Ala Val Lys Lys Tyr Phe Gln Arg Ile Thr
115 120 125

5 Leu Tyr Leu Met Glu Lys Lys Tyr Ser Pro Cys Ala Trp Glu Val Val
130 135 140

Arg Ala Glu Ile Met Arg Ser Phe Ser Phe Ser Thr Asn Leu Gln Lys
145 150 155 160

10 Arg Leu Arg Arg Lys Glu
165

15 <210> 55
<211> 166
<212> PRT
<213> Artificial Sequence

20 <220>
<223> Description of Artificial Sequence: Synthetic amino acid

25 <220>
<223> Clone ID 2G4

25 <400> 55
Cys Asp Leu Pro Gln Thr His Ser Leu Gly Asn Arg Arg Ala Met Met
1 5 10 15

30 Leu Leu Ala Gln Met Ser Arg Ile Ser Pro Ser Ser Cys Leu Met Asp
20 25 30

Arg His Asp Phe Glu Phe Pro Gln Glu Glu Phe Asp Asp Lys Gln Phe
35 40 45

35 Gln Lys Ala Pro Ala Ile Ser Val Leu His Glu Val Ile Gln Gln Thr
50 55 60

40 Phe Asn Leu Phe Ser Thr Glu Asp Ser Ser Ala Ala Trp Glu Gln Thr
65 70 75 80

Leu Leu Glu Lys Phe Ser Thr Glu Leu Tyr Gln Gln Leu Asn Asp Leu
85 90 95

45 Glu Ala Cys Val Met Gln Glu Glu Arg Val Gly Glu Thr Pro Leu Met
100 105 110

Asn Ala Asp Ser Ile Leu Ala Val Arg Lys Tyr Phe Gln Arg Ile Thr
115 120 125

50 Leu Tyr Leu Thr Lys Lys Lys Tyr Ser Pro Cys Ser Trp Glu Val Val
130 135 140

55 Arg Ala Glu Ile Met Arg Ser Phe Ser Phe Ser Thr Asn Leu Gln Lys
145 150 155 160

Arg Leu Arg Arg Lys Glu
165

09685189 = 100600

<210> 56
<211> 166
<212> PRT
5 <213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic amino acid

10 <220>
<223> Clone ID 1A1

<400> 56
Cys Asp Leu Pro Gln Thr His Ser Leu Gly Asn Arg Arg Ala Leu Ile
15 1 5 10 15

Leu Leu Ala Gln Met Gly Arg Ile Ser His Phe Ser Cys Leu Lys Asp
20 20 25 30

20 Arg Tyr Asp Phe Gly Phe Pro Gln Glu Val Phe Asp Gly Asn Gln Phe
35 35 40 45

Gln Lys Ala Gln Ala Ile Ser Ala Phe His Glu Met Met Gln Gln Thr
25 50 55 60

Phe Asn Leu Phe Ser Thr Glu Asp Ser Ser Ala Ala Trp Glu Gln Ser
65 65 70 75 80

30 Leu Leu Glu Lys Phe Ser Thr Glu Leu His Gln Gln Leu Asn Asp Leu
85 85 90 95

Glu Ala Cys Val Ile Gln Glu Val Gly Val Glu Glu Thr Pro Leu Met
100 100 105 110

35 Asn Glu Asp Ser Ile Leu Ala Val Arg Lys Tyr Phe Gln Arg Ile Thr
115 115 120 125

Leu Tyr Leu Met Glu Lys Lys Tyr Ser Pro Cys Ala Trp Glu Val Val
40 130 135 140

Arg Ala Glu Ile Met Arg Ser Phe Ser Phe Ser Thr Asn Leu Gln Lys
145 145 150 155 160

45 Arg Leu Arg Arg Lys Glu
165

<210> 57
<211> 166
50 <212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic amino acid

55 <220>
<223> Clone ID 1D10

<400> 57

Cys Asp Leu Pro Gln Thr His Ser Leu Gly Asn Arg Arg Ala Leu Ile
1 5 10 15

Leu Leu Ala Gln Met Gly Arg Ile Ser Pro Phe Ser Cys Leu Lys Asp
5 20 25 30

Arg His Asp Phe Arg Phe Pro Gln Glu Glu Phe Asp Gly Asn Gln Leu
35 40 45

10 Gln Lys Thr Gln Ala Ile Ser Val Leu His Glu Met Ile Gln Gln Thr
50 55 60

Phe Asn Leu Phe Ser Thr Lys Asp Ser Ser Ala Thr Trp Glu Gln Ser
65 70 75 80

15 Leu Leu Glu Lys Phe Ser Thr Glu Leu Asn Gln Gln Leu Asn Asp Leu
85 90 95

Glu Ala Cys Val Ile Gln Gly Val Gly Val Glu Glu Thr Pro Pro Met
20 100 105 110

Asn Val Asp Ser Ile Leu Ala Val Lys Lys Tyr Phe Gln Arg Ile Thr
115 120 125

25 Leu Tyr Leu Thr Glu Lys Lys Tyr Ser Pro Cys Ala Trp Glu Val Val
130 135 140

Arg Ala Glu Ile Met Arg Ser Phe Ser Phe Ser Thr Asn Leu Gln Lys
30 145 150 155 160

Arg Leu Arg Arg Lys Glu
165

35 <210> 58
<211> 166
<212> PRT
<213> Artificial Sequence

40 <220>
<223> Description of Artificial Sequence: Synthetic amino acid

<220>
<223> Clone ID 1F6

45 <400> 58
Cys Asp Leu Pro Gln Thr His Ser Leu Gly Asn Arg Arg Thr Leu Met
1 5 10 15

50 Ile Met Ala Gln Met Gly Arg Ile Ser Pro Phe Ser Cys Leu Lys Asp
20 25 30

Arg His Asp Phe Gly Phe Pro Gln Glu Glu Phe Asp Gly Asn Gln Phe
35 40 45

55 Gln Lys Ala Gln Ala Ile Ser Val Leu His Glu Met Ile Gln Gln Thr
50 55 60

Phe Asn Leu Phe Ser Thr Lys Asp Ser Ser Ala Thr Trp Glu Gln Ser

65 70 75 80
Leu Leu Glu Lys Phe Ser Thr Glu Leu Asn Gln Gln Leu Asn Asp Leu
85 90 95
5 Glu Ala Cys Val Ile Gln Glu Ala Gly Val Glu Glu Thr Pro Leu Met
100 105 110
Asn Val Asp Ser Ile Leu Ala Val Lys Lys Tyr Phe Gln Arg Ile Thr
10 115 120 125
Leu Tyr Leu Thr Glu Lys Lys Tyr Ser Pro Cys Ala Trp Glu Val Val
130 135 140
15 Arg Ala Glu Ile Met Arg Ser Phe Ser Phe Ser Thr Asn Leu Gln Lys
145 150 155 160
Arg Leu Arg Arg Lys Glu
165
20
<210> 59
<211> 166
<212> PRT
25 <213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic amino acid
30 <220>
<223> Clone ID 2A10

<400> 59
Cys Asp Leu Pro Gln Thr His Ser Leu Gly Asn Arg Arg Ala Leu Ile
35 1 5 10 15
Leu Leu Ala Gln Met Gly Arg Ile Ser His Phe Ser Cys Leu Lys Asp
20 25 30
40 Arg Tyr Asp Phe Gly Phe Pro Gln Glu Val Phe Asp Gly Asn Gln Phe
35 35 40 45
Gln Lys Ala Gln Ala Ile Ser Ala Phe His Glu Met Ile Gln Gln Thr
50 50 55 60
45 Phe Asn Leu Phe Ser Thr Lys Asp Ser Ser Ala Thr Trp Glu Gln Ser
65 65 70 75 80
Leu Leu Glu Lys Phe Ser Thr Glu Leu Tyr Gln Gln Leu Asn Asn Leu
50 85 90 95
Glu Ala Cys Val Ile Gln Glu Val Gly Val Glu Glu Thr Pro Leu Met
100 105 110
55 Asn Glu Asp Ser Ile Leu Ala Val Arg Lys Tyr Phe Gln Arg Ile Thr
115 120 125
Leu Tyr Leu Met Glu Lys Lys Tyr Ser Pro Cys Ala Trp Glu Val Val
130 135 140

Arg Ala Glu Ile Met Arg Ser Phe Ser Phe Ser Thr Asn Leu Gln Lys
145 150 155 160

5 Arg Leu Arg Arg Lys Glu
165

10 <210> 60
<211> 166
<212> PRT
<213> Artificial Sequence

15 <220>
<223> Description of Artificial Sequence: Synthetic amino acid

20 <220>
<223> Clone ID 2C3

25 <400> 60
Cys Asp Leu Pro Gln Thr His Ser Leu Gly Asn Arg Arg Ala Leu Ile
1 5 10 15

Leu Leu Ala Gln Met Gly Arg Ile Ser Pro Phe Ser Cys Leu Lys Asp
25 20 25 30

30 Arg His Asp Phe Gly Phe Pro Gln Glu Glu Phe Asp Gly Asn Gln Ser
35 35 40 45

35 Gln Lys Ala Gln Ala Ile Ser Val Leu His Glu Met Ile Gln Gln Thr
50 55 60

40 Phe Asn Leu Phe Ser Thr Lys Asp Ser Ser Asp Thr Trp Asp Ala Thr
65 70 75 80

45 Leu Leu Glu Lys Phe Ser Thr Glu Leu Asn Gln Gln Leu Asn Asp Leu
85 90 95

50 Glu Ala Cys Val Ile Gln Glu Val Gly Val Glu Glu Thr Pro Leu Met
100 105 110

55 Asn Val Asp Ser Ile Leu Ala Val Lys Lys Tyr Phe Gln Arg Ile Thr
115 120 125

60 Leu Tyr Leu Thr Glu Lys Lys Tyr Ser Pro Cys Ala Trp Glu Val Val
130 135 140

65 Arg Ala Glu Ile Met Arg Ser Phe Ser Phe Ser Thr Asn Leu Gln Lys
145 150 155 160

70 Arg Leu Arg Arg Lys Glu
165

75 <210> 61
<211> 166
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic amino acid

<220>

5 <223> Clone ID 2D1

<400> 61

Cys Asp Leu Pro Gln Thr His Ser Leu Gly Asn Arg Arg Ala Leu Ile
1 5 10 15

10 Leu Leu Ala Gln Met Arg Arg Ile Ser Pro Phe Ser Cys Leu Lys Asp
20 25 30

15 Arg His Asp Phe Gly Phe Pro Gln Glu Glu Phe Asp Gly Asn Gln Phe
35 40 45

Gln Lys Ala Gln Ala Ile Ser Ala Phe His Glu Met Ile Gln Gln Thr
50 55 60

20 Phe Asn Leu Phe Ser Thr Lys Asp Ser Ser Ala Ala Trp Glu Gln Ser
65 70 75 80

25 Leu Leu Glu Lys Phe Ser Thr Glu Leu Tyr Gln Gln Leu Asn Asn Leu
85 90 95

Glu Ala Cys Val Ile Gln Glu Val Gly Met Glu Glu Thr Pro Leu Met
100 105 110

30 Asn Glu Asp Ser Ile Leu Ala Val Lys Lys Tyr Phe Gln Arg Ile Thr
115 120 125

Leu Tyr Leu Thr Glu Lys Lys Tyr Ser Pro Cys Ala Trp Glu Val Val
130 135 140

35 Arg Ala Glu Ile Met Arg Ser Phe Ser Phe Ser Thr Asn Leu Gln Lys
145 150 155 160

Arg Leu Arg Arg Lys Glu
165

40

<210> 62

<211> 166

<212> PRT

45 <213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic amino acid

50 <220>

<223> Clone ID 2D10

<400> 62

Cys Asp Leu Pro Gln Thr His Ser Leu Gly Asn Arg Arg Ala Leu Ile
1 5 10 15

55 Leu Leu Ala Gln Met Gly Arg Val Ser Pro Phe Ser Cys Leu Lys Asp
20 25 30

Arg His Asp Phe Gly Phe Pro Gln Glu Glu Phe Asp Gly Asn Gln Phe
35 . 40 . 45

5 Gln Lys Ala Gln Ala Ile Ser Ala Phe His Glu Met Ile Gln Gln Thr
50 . 55 . 60

Phe Asn Leu Phe Ser Thr Lys Asp Ser Ser Ala Thr Trp Glu Gln Ser
65 . 70 . 75 . 80

10 Leu Leu Glu Lys Phe Ser Thr Glu Leu Tyr Gln Gln Leu Asn Asn Leu
85 . 90 . 95

Glu Ala Cys Val Ile Gln Glu Val Gly Val Glu Glu Thr Pro Leu Met
100 . 105 . 110

15 Asn Val Asp Ser Ile Leu Ala Val Lys Lys Tyr Phe Arg Arg Ile Thr
115 . 120 . 125

20 Leu Tyr Leu Thr Glu Lys Lys Tyr Ser Pro Cys Ala Trp Glu Val Val
130 . 135 . 140

Arg Ala Glu Ile Met Arg Ser Phe Ser Phe Ser Thr Asn Leu Gln Lys
145 . 150 . 155 . 160

25 Arg Leu Arg Arg Lys Glu
165

30 <210> 63
<211> 166
<212> PRT
<213> Artificial Sequence

35 <220>
<223> Description of Artificial Sequence: Synthetic amino acid

<220>
<223> Clone ID 2D7

40 <400> 63
Cys Asp Leu Pro Gln Thr His Ser Leu Gly Asn Arg Arg Ala Leu Ile
1 . 5 . 10 . 15

45 Leu Leu Ala Gln Met Gly Arg Ile Ser Pro Phe Ser Cys Leu Lys Asp
20 . 25 . 30

Arg His Asp Phe Arg Phe Pro Gln Glu Glu Phe Asp Gly Asn Gln Phe
35 . 40 . 45

50 Gln Lys Ala Gln Ala Ile Ser Val Leu His Glu Met Ile Gln Gln Thr
50 . 55 . 60

Phe Asn Leu Phe Ser Thr Lys Asp Ser Ser Ala Thr Trp Glu Gln Ser
65 . 70 . 75 . 80

55 Leu Leu Glu Lys Phe Ser Thr Glu Leu Tyr Gln Gln Leu Asn Asn Leu
85 . 90 . 95

Glu Ala Cys Val Ile Gln Glu Val Gly Val Glu Glu Thr Pro Leu Met

100 105 110

Asn Val Asp Ser Ile Leu Ala Val Lys Lys Tyr Phe Gln Arg Ile Thr
115 120 125

5 Leu Tyr Leu Thr Glu Arg Lys Tyr Ser Pro Cys Ala Trp Glu Val Val
130 135 140

Arg Ala Glu Ile Met Arg Ser Phe Ser Phe Ser Thr Asn Leu Gln Lys
10 145 150 155 160

Arg Leu Arg Arg Lys Glu
165

15 <210> 64
 <211> 166
 <212> PRT
 <213> Artificial Sequence

20 <220>
 <223> Description of Artificial Sequence: Synthetic amino acid

25 <220>
 <223> Clone ID 2D9

<400> 64
Cys Asp Leu Pro Gln Thr His Ser Leu Gly Asn Arg Arg Ala Leu Ile
1 5 10 15

30 Leu Leu Ala Gln Met Gly Arg Ile Ser Pro Phe Ser Cys Leu Lys Asp
20 25 30

35 Arg His Asp Phe Gly Phe Pro Gln Glu Glu Phe Asp Gly Asn Gln Phe
35 40 45

Gln Lys Ala Gln Ala Ile Ser Val Leu His Glu Met Ile Gln Gln Thr
50 55 60

40 Phe Asn Leu Phe Ser Thr Lys Asp Ser Ser Ala Thr Trp Glu Gln Ser
65 70 75 80

Leu Leu Glu Lys Phe Ser Thr Glu Leu Asn Gln Gln Leu Asn Asp Leu
85 90 95

45 Glu Ala Cys Val Ile Gln Glu Val Gly Val Glu Glu Thr Pro Leu Val
100 105 110

50 Asn Val Asp Ser Ile Leu Ala Val Lys Lys Tyr Phe Gln Arg Ile Thr
115 120 125

Leu Tyr Leu Thr Glu Lys Lys Tyr Ser Pro Cys Ala Trp Glu Val Val
130 135 140

55 Arg Ala Glu Ile Met Arg Ser Phe Ser Phe Ser Thr Asn Leu Gln Lys
145 150 155 160

Arg Leu Arg Arg Lys Glu
165

5 <210> 65
<211> 166
<212> PRT
<213> Artificial Sequence

10 <220>
<223> Description of Artificial Sequence: Synthetic amino acid

15 <220>
<223> Clone ID 2DA2

<400> 65
15 Cys Asp Leu Pro Gln Thr His Ser Leu Gly Asn Arg Arg Pro Leu Ile
1 5 10 15

Leu Leu Ala Gln Met Gly Arg Ile Ser Pro Phe Ser Cys Leu Lys Asp
20 20 25 30

20 Arg Gln Asp Phe Gly Phe Pro Gln Glu Glu Phe Asp Gly Asn Gln Phe
35 35 40 45

25 Gln Lys Ala Gln Ala Ile Ser Val Leu His Glu Met Met Gln Gln Thr
50 55 60

30 Phe Asn Leu Phe Ser Thr Lys Asn Ser Ser Ala Ala Trp Glu Gln Ser
65 65 70 75 80

35 Leu Leu Glu Lys Phe Ser Thr Glu Leu His Gln Gln Leu Asn Glu Leu
85 85 90 95

40 Glu Ala Cys Val Ile Gln Glu Val Gly Val Glu Glu Thr Pro Leu Met
100 100 105 110

45 Asn Val Asp Ser Ile Leu Ala Val Lys Lys Tyr Phe Gln Arg Ile Thr
115 115 120 125

50 Leu Tyr Leu Ile Glu Arg Lys Tyr Ser Pro Cys Ala Trp Glu Val Val
130 130 135 140

55 Arg Ala Glu Ile Met Arg Ser Phe Ser Phe Ser Thr Asn Leu Gln Lys
145 145 150 155 160

45 Arg Leu Arg Arg Lys Glu
165

50 <210> 66
<211> 166
<212> PRT
<213> Artificial Sequence

55 <220>
<223> Description of Artificial Sequence: Synthetic amino acid

<220>
<223> Clone ID 2DH9

<400> 66
Cys Asp Leu Pro Gln Thr His Ser Pro Gly Asn Arg Arg Ala Leu Met
1 5 10 15

5 Leu Leu Ala Gln Met Gly Arg Ile Ser Pro Phe Ser Cys Leu Lys Asp
20 25 30

Arg Tyr Asp Phe Gly Phe Pro Gln Gly Glu Phe Asp Gly Asn Gln Phe
35 40 45

10 Gln Lys Ala Gln Ala Ile Ser Val Leu His Glu Met Met Gln Gln Thr
50 55 60

Phe Asn Leu Phe Ser Thr Lys Asp Ser Ser Ala Ala Trp Glu Gln Ser
15 65 70 75 80

Leu Leu Glu Lys Phe Ser Thr Glu Leu Tyr Arg Gln Leu Asn Asp Leu
85 90 95

20 Glu Ala Cys Val Ile Gln Glu Val Gly Val Glu Glu Thr Pro Leu Met
100 105 110

Asn Val Asp Ser Ile Leu Ala Val Arg Lys Tyr Phe Gln Arg Ile Thr
115 120 125

25 Leu Tyr Leu Thr Glu Lys Lys His Ser Pro Cys Ser Trp Glu Val Val
130 135 140

Arg Ala Glu Ile Met Arg Ser Phe Ser Phe Ser Thr Asn Leu Gln Lys
30 145 150 155 160

Arg Leu Arg Arg Lys Glu
165

35 <210> 67
<211> 166
<212> PRT
<213> Artificial Sequence

40 <220>
<223> Description of Artificial Sequence: Synthetic amino acid

<220>
45 <223> Clone ID 2G11

<400> 67
Cys Asp Leu Pro Gln Thr His Ser Leu Gly Asn Arg Arg Ala Leu Ile
1 5 10 15

50 Leu Leu Ala Gln Met Gly Arg Ile Ser Pro Phe Ser Cys Leu Lys Asp
20 25 30

Arg His Asp Phe Gly Leu Pro Gln Glu Glu Phe Asp Gly Asn Gln Phe
55 35 40 45

Gln Lys Thr Gln Ala Ile Ser Val Leu His Glu Met Ile Gln Gln Thr
50 55 60

Phe Asn Leu Phe Ser Thr Lys Asp Ser Ser Asp Thr Trp Glu Gln Ser
65 70 75 80

5 Leu Leu Glu Lys Phe Tyr Ile Glu Leu Phe Gln Gln Leu Asn Asp Leu
85 90 95

Glu Ala Cys Val Ile Gln Glu Val Gly Val Glu Glu Thr Pro Leu Met
100 105 110

10 Asn Val Asp Ser Ile Leu Ala Val Arg Lys Tyr Phe Gln Arg Ile Thr
115 120 125

Leu Tyr Leu Thr Glu Glu Lys Tyr Ser Pro Cys Ala Trp Glu Val Val
130 135 140

15 Arg Ala Glu Ile Met Arg Ser Phe Ser Phe Ser Thr Asn Leu Gln Lys
145 150 155 160

Arg Leu Arg Arg Lys Glu
20 165

25 <210> 68
<211> 166
<212> PRT
<213> Artificial Sequence

30 <220>
<223> Description of Artificial Sequence: Synthetic amino acid
<220>
<223> Clone ID 2G12

35 <400> 68
Cys Asp Leu Pro Gln Thr His Ser Leu Gly Asn Arg Arg Thr Leu Met
1 5 10 15

Leu Met Ala Gln Met Arg Arg Ile Ser Pro Phe Pro Arg Leu Lys Asp
20 25 30

40 Arg Tyr Asp Phe Gly Phe Pro Gln Glu Val Phe Asp Gly Asn Gln Phe
35 40 45

Gln Lys Ala Gln Ala Ile Phe Leu Phe His Glu Met Met Gln Gln Thr
45 50 55 60

Phe Asn Leu Phe Ser Thr Lys Asn Ser Ser Ala Ala Trp Asp Glu Thr
65 70 75 80

50 Leu Leu Asp Lys Phe Tyr Thr Glu Leu Tyr Gln Gln Leu Asn Asp Leu
85 90 95

Glu Ala Cys Val Met Gln Glu Gly Arg Val Gly Glu Thr Pro Leu Met
100 105 110

55 Asn Ala Asp Ser Ile Leu Ala Val Lys Lys Tyr Phe Arg Arg Ile Thr
115 120 125

Leu Tyr Leu Thr Glu Lys Lys Tyr Ser Pro Cys Ala Trp Glu Ala Val

130

135

140

Arg Ala Glu Ile Met Arg Ser Phe Ser Phe Ser Thr Asn Leu Gln Lys
145 150 155 160

5

Arg Leu Arg Arg Lys Glu
165

10 <210> 69

<211> 166

<212> PRT

<213> Artificial Sequence

15 <220>

<223> Description of Artificial Sequence: Synthetic amino acid

<220>

<223> Clone ID 2H9

20

<400> 69

Cys Asp Leu Pro Gln Thr His Ser Leu Gly Asn Arg Arg Ala Leu Ile
1 5 10 15

25 Leu Leu Ala Gln Met Gly Arg Ile Ser Pro Phe Ser Cys Leu Lys Asp
20 25 30

Arg His Asp Phe Gly Phe Pro Gln Glu Glu Phe Asp Gly Asn Gln Phe
35 40 45

30 Gln Lys Ala Gln Ala Ile Ser Val Leu His Glu Met Ile Gln Gln Thr
50 55 60

35 Phe Asn Leu Phe Ser Thr Lys Asp Ser Ser Ala Thr Trp Glu Gln Ser
65 70 75 80

Leu Leu Glu Lys Phe Ser Thr Glu Leu Asn Gln Gln Leu Asn Asp Leu
85 90 95

40 Glu Ala Cys Val Thr Gln Glu Val Gly Val Glu Glu Thr Pro Leu Met
100 105 110

Asn Glu Asp Ser Ile Leu Ala Val Lys Lys Tyr Phe Gln Arg Ile Thr
115 120 125

45 Leu Tyr Leu Thr Glu Lys Lys Tyr Ser Pro Cys Ala Trp Glu Val Val
130 135 140

50 Arg Ala Glu Ile Met Arg Ser Phe Ser Phe Ser Thr Asn Leu Gln Lys
145 150 155 160

Arg Leu Arg Arg Lys Glu
165

55

<210> 70

<211> 166

<212> PRT

<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic amino acid

5 <220>

<223> Clone ID 6BC11

<400> 70

Cys Asp Leu Pro Gln Thr His Ser Leu Gly Asn Arg Arg Ala Leu Ile
10 1 5 10 15

Leu Leu Ala Gln Met Gly Arg Ile Ser Pro Phe Ser Cys Leu Lys Asp
20 25 30

15 Arg Tyr Asp Phe Gly Phe Pro Gln Glu Glu Phe Asp Gly Asn Gln Leu
35 40 45

Gln Lys Ala Gln Ala Ile Ser Val Leu His Glu Met Ile Gln Gln Thr
50 55 60

20 Phe Asn Leu Phe Ser Thr Lys Asp Ser Ser Ala Ala Trp Glu Gln Ser
65 70 75 80

25 Leu Leu Glu Lys Phe Ser Thr Glu Leu Asn Gln Gln Leu Asn Asp Leu
85 90 95

Glu Ala Cys Val Ile Gln Glu Val Gly Val Glu Glu Thr Pro Leu Met
100 105 110

30 Asn Val Asp Ser Ile Leu Ala Val Lys Lys Tyr Phe Gln Arg Ile Thr
115 120 125

Leu Tyr Leu Thr Glu Arg Lys Tyr Ser Pro Cys Ala Trp Glu Val Val
130 135 140

35 Arg Ala Glu Ile Met Arg Ser Phe Ser Phe Ser Thr Asn Leu Gln Lys
145 150 155 160

40 Arg Leu Arg Arg Lys Glu
165

<210> 71

<211> 166

45 <212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic amino acid

50 <220>

<223> Clone ID t19bb

<220>

<221> MOD_RES

<222> (11)

<223> N or D

<220>

09685189-100600

5 <220>
 <221> MOD_RES
 <222> (12)
 <223> R, S, or K

10 <220>
 <221> MOD_RES
 <222> (15)
 <223> L or M

15 <220>
 <221> MOD_RES
 <222> (16)
 <223> I, M or V

20 <220>
 <221> MOD_RES
 <222> (19)
 <223> A or G

25 <220>
 <221> MOD_RES
 <222> (22)
 <223> G or R

30 <220>
 <221> MOD_RES
 <222> (24)
 <223> I or T

35 <220>
 <221> MOD_RES
 <222> (26)
 <223> P or H

40 <220>
 <221> MOD_RES
 <222> (34)
 <223> Y or Q

45 <220>
 <221> MOD_RES
 <222> (38)
 <223> F or L

50 <220>
 <221> MOD_RES
 <222> (40)
 <223> Q or R

55 <220>
 <221> MOD_RES
 <222> (45)
 <223> G or S

55 <220>
 <221> MOD_RES
 <222> (46)
 <223> N or H

095851851400600

5 <220>
 <221> MOD_RES
 <222> (47)
 <223> Q or R
10 <220>
 <221> MOD_RES
 <222> (50)
 <223> K or R
15 <220>
 <221> MOD_RES
 <222> (51)
 <223> A or T
20 <220>
 <221> MOD_RES
 <222> (55)
 <223> S or F
25 <220>
 <221> MOD_RES
 <222> (56)
 <223> V or A
30 <220>
 <221> MOD_RES
 <222> (57)
 <223> L or F
35 <220>
 <221> MOD_RES
 <222> (60)
 <223> M or I
40 <220>
 <221> MOD_RES
 <222> (61)
 <223> I or M
45 <220>
 <221> MOD_RES
 <222> (67)
 <223> L or F
50 <220>
 <221> MOD_RES
 <222> (72)
 <223> D or N
55 <220>
 <221> MOD_RES
 <222> (75)
 <223> A or V
 <220>
 <221> MOD_RES
 <222> (76)
 <223> A or T

PAGES 189 - 200600

5 <220>
 <221> MOD_RES
 <222> (78)
 <223> E or D

10 <220>
 <221> MOD_RES
 <222> (79)
 <223> Q or E

15 <220>
 <221> MOD_RES
 <222> (80)
 <223> S, R, T, or N

20 <220>
 <221> MOD_RES
 <222> (83)
 <223> E or D

25 <220>
 <221> MOD_RES
 <222> (85)
 <223> F or L

30 <220>
 <221> MOD_RES
 <222> (86)
 <223> S or Y

35 <220>
 <221> MOD_RES
 <222> (88)
 <223> E or G

40 <220>
 <221> MOD_RES
 <222> (90)
 <223> Y, H, N

45 <220>
 <221> MOD_RES
 <222> (95)
 <223> D, E, or N

50 <220>
 <221> MOD_RES
 <222> (101)
 <223> I, M, or V

55 <220>
 <221> MOD_RES
 <222> (103)
 <223> E or G

 <220>
 <221> MOD_RES
 <222> (105)

DECEMBER 1993 EDITION

<223> G or W
5 <220>
 <221> MOD_RES
 <222> (106)
 <223> V or M

10 <220>
 <221> MOD_RES
 <222> (107)
 <223> E, G, or K

15 <220>
 <221> MOD_RES
 <222> (108)
 <223> E or G

20 <220>
 <221> MOD_RES
 <222> (114)
 <223> V, E, or G

25 <220>
 <221> MOD_RES
 <222> (116)
 <223> S or P

30 <220>
 <221> MOD_RES
 <222> (121)
 <223> K or R

35 <220>
 <221> MOD_RES
 <222> (124)
 <223> F or L

40 <220>
 <221> MOD_RES
 <222> (132)
 <223> T, I, or M

45 <220>
 <221> MOD_RES
 <222> (134)
 <223> K or R

50 <220>
 <221> MOD_RES
 <222> (140)
 <223> A or S

55 <400> 71
 Cys Asp Leu Pro Gln Thr His Ser Leu Gly Xaa Xaa Arg Ala Xaa Xaa
 1 5 10 15
 Leu Leu Xaa Gln Met Xaa Arg Xaa Ser Xaa Phe Ser Cys Leu Lys Asp
 20 25 30

Arg Xaa Asp Phe Gly Xaa Pro Xaa Glu Glu Phe Asp Xaa Xaa Xaa Phe
35 40 45

5 Gln Xaa Xaa Gln Ala Ile Xaa Xaa Xaa His Glu Xaa Xaa Gln Gln Thr
50 55 60

Phe Asn Xaa Phe Ser Thr Lys Xaa Ser Ser Xaa Xaa Trp Xaa Xaa Xaa
65 70 75 80

10 Leu Leu Xaa Lys Xaa Xaa Thr Xaa Leu Xaa Gln Gln Leu Asn Xaa Leu
85 90 95

Glu Ala Cys Val Xaa Gln Xaa Val Xaa Xaa Xaa Xaa Thr Pro Leu Met
100 105 110

15 Asn Xaa Asp Xaa Ile Leu Ala Val Xaa Lys Tyr Xaa Gln Arg Ile Thr
115 120 125

Leu Tyr Leu Xaa Glu Xaa Lys Tyr Ser Pro Cys Xaa Trp Glu Val Val
20 130 135 140

Arg Ala Glu Ile Met Arg Ser Phe Ser Phe Ser Thr Asn Leu Gln Lys
145 150 155 160

25 Arg Leu Arg Arg Lys Glu
165

30 <210> 72
<211> 498
<212> DNA
<213> Artificial Sequence

35 <220>
<223> Description of Artificial Sequence: Synthetic DNA

<220>
<223> Clone ID CH1.1

40 <400> 72
tgtgatctgc ctcagaccca cagccttggt aacaggaggg ccttgatact cctggcacaa 60
atgggaagaa tctctccctt ctcctgtctg atggacagac atgactttgg atttccccag 120
gaggagttt atgacaacca gttccagaag gctcaagcca tctctgtcct ccatgagatg 180
atccaacaga cctcaaatct cttcagcaca aaggactcat ctgctacttg ggatgagaca 240
45 cttctagaca aattctacac tgaaccttac cagcagctga atgaccctgga agcctgcgtg 300
atacaggagg ttgggggtgga agagactccc ctgatgaatg aggactccat cttggctgtg 360
aagaaaatact tccgaagaat cactcttat ctgacagaga agaaaatacag cccttgcgcc 420
tgggaggttg tcagagcaga aatcatgaga tctttctctt tttcaacaaa cttgcaaaaa 480
agattaagga ggaaggaa 498

50 <210> 73
<211> 498
<212> DNA
<213> Artificial Sequence

55 <220>
<223> Description of Artificial Sequence: Synthetic DNA

<220>

<223> Clone ID CH1.2

<400> 73

5 tggatctgc ctcagaccca cagccttggg aacaggaggg ctttgataact cctggcacaa 60
atgggaagaa tctctccctt ctcctgcctg aaggacagac atgactttgg attccccag 120
gaggagttg atggcaacca gttccagaag gctcaaggca tctctgtcct ccatgagatg 180
atccagcaga ctttccatct cttcagcaca aaggactcat ctgtacttg ggaacagagc 240
ctcctagaaa aattttccac tgaacctaac cagcagctga atgacctgga agcctgcgtg 300
atacaggagg ttgggggtgga agagactccc ctgatgaatg tggactccat cctggctgtg 360
10 aagaaaatact tccgaagaat cactcttat ctgacagaga agaaatacag cccttgcgcc 420
tgggaggttg tcagagcaga aatcatgaga tctttctt tttcaacaaa cttgcaaaaa 480
agattaagga ggaaggaa 498

<210> 74

15 <211> 498

<212> DNA

<213> Artificial Sequence

<220>

20 <223> Description of Artificial Sequence: Synthetic DNA

<220>

<223> Clone ID CH1.3

25 <400> 74

tggatctgc ctcagaccca cagccttggg aacaggagga ctttgatgt aatggcacaa 60
atgggaagaa tctctccctt ctcctgcctg aaggacagac atgactttgg atttcctcag 120
gaggagttg atggcaacca gttccagaag gctcaaggca tctctgtcct ccatgagatg 180
atccagcaga ctttccatct cttcagcaca aaggactcat ctgtacttg ggatgagaca 240
30 cttctagaca aattctacac tgaaccttac cagcagctga atgacctgga agcctgtatg 300
atgcaggagg ttggagtggg agacactcct ctgatgaatg tggactctat cctgactgtg 360
agaaaatact ttcaagaat cactcttat ctgacagaga agaaatacag cccttgcgcc 420
tgggaggttg tcagagcaga aatcatgaga tctttctt tttcaacaaa cttgcaaaaa 480
agattaagga ggaaggaa 498

35 <210> 75

<211> 498

<212> DNA

<213> Artificial Sequence

40 <220>

<223> Description of Artificial Sequence: Synthetic DNA

<220>

45 <223> Clone ID CH1.4

<400> 75

tggatctgc ctcagaccca cagccttggg aataggaggg ctttgataact cctggcacaa 60
atgggaagaa tctctccctt ctcctgcctg aaggacagac atgactttgg attccccag 120
50 gaggagttg gtggcaacca gttccagaag gctcaaggca tctctgtcct ccatgagatg 180
atccagcaga ctttccatct cttcagcaca gaggactcat ctgtgtctg ggatgagacc 240
ctcctagaca aattctacat tgaaccttac cagcaactga atgacctgga agcctgtgtg 300
atgcaggagg agagggtggg agaaactccc ctgatgaatg cggactccat cttggctgtg 360
55 aagaaaatact tccaaagaat cactcttat ctgacagaga agaaatacag cccttgcgcc 420
tgggaggttg tcagagcaga aatcatgaga tctttctt tttcaacaaa cttgcaaaaa 480
agattaagga ggaaggaa 498

<210> 76

<211> 498

<212> DNA
<213> Artificial Sequence

5 <220>
<223> Description of Artificial Sequence: Synthetic DNA

<220>
<223> Clone ID CH2.1

10 <400> 76
tgtatctgc ctcagaccca cagccttggt aacaggagga ctttcatat aatggcacaa 60
atggaaaga tctcccttt ctccctgcctg aaggacagac atgactttgg atttccttag 120
gaggagttt atggcaacca gttccagaag gctcaagcca tctctgtcct ccatgagatg 180
atccagcaga cttcaatct cttcagcaca aaggactcat ctgctacttg ggatgagaca 240
15 cttctagaca aattctacac tgaactttac cagcagctga atgacctgga agcctgtatg 300
atacaggagg ttgggttgg aagactccc ctgatgaatg aggactccat cttggctgtg 360
aagaaatact tccgaagaat cactcttat ctgacagaga agaaatacag cccttgcgcc 420
tgggagggttgc tcagagcaga aatcatgaga tctttctttt tttcaacaaa cttgcaaaaa 480
agattaagga qqaaggaa 498

20 <210> 77
<211> 498
<212> DNA

25 <213> Artificial Sequence
 <220>
 <223> Description of Artificial Sequence: Synthetic DNA

<220>

<400> 77
tgtgatctgc ctcagaccca cagccttggt aacaggaggg ctttgataact cctggcacaa 60
atgggaagaa tcttccttt ctccctgtctg atggacagacat gactttgg atttccccag 120
35 gaggagttt atgacaacca gttccagaag gctcaagccatct cttctgtcct ccatgagatg 180
atccaaacaga cttcaatct cttcagcaca aaggactcat ctgctacttg ggatgagaca 240
cttcttagaca aattctacac tgaactttac cagcagctga atgaccttggaa agcctgtatg 300
atgcaggagg ttggagtggaa agacactcct ctgatgaatg tggactctat cctgactgtg 360
40 aagaaatact tccgaagaat cactcttat ctgacagagaga agaaatacag cccttgc 420
tgggaggttg tcagagcaga aatcatgaga tctttctt tttcaacaaa cttgcaaaaa 480
agatttaaggaa ggaaggaa 498

45 <210> 78
<211> 498
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic DNA

50
<220>
<223> Clone ID CH2.3

55 <400> 78
tgtgatctgc ctcagaccca cagcctgg t aacaggagga ctggatgtat aatggcacaa 60
atggaaagaa tctctccctt ctcctgcctg aaggacagac atgactttgg atttcctcag 120
gaggagttt gatggcaacc a gttccagaag gctcaagcca tctctgtcct ccatgagatg 180
atccagcaga ccttaatctt ctgcagcaca aaggactcat ctgctacttg ggatgagaca 240
cttctagaca aattctacac tgaactttac cagcaqctqa atgacctqga aqccctqtatg 300

atgcaggagg ttggagtgga agacactcct ctgatgaatg aggactccat cttggctgtg 360
aagaataact tccgaagaat cactcttat ctgacagaga agaaatacag cccttgc 420
tgggaggttgc tcagagcaga aatcatgaga tctttcttt tctcaacaaa cttgcaaaaa 480
agattaagga ggaaggaa 498

5

<210> 79

<211> 166

<212> PRT

<213> Artificial Sequence

10

<220>

<223> Description of Artificial Sequence: Synthetic amino acid

<220>

15

<223> Clone ID CH1.1

<400> 79

Cys Asp Leu Pro Gln Thr His Ser Leu Gly Asn Arg Arg Ala Leu Ile
1 5 10 15

20

Leu Leu Ala Gln Met Gly Arg Ile Ser Pro Phe Ser Cys Leu Met Asp
20 25 30

25

Arg His Asp Phe Gly Phe Pro Gln Glu Glu Phe Asp Asp Asn Gln Phe
35 40 45

Gln Lys Ala Gln Ala Ile Ser Val Leu His Glu Met Ile Gln Gln Thr
50 55 60

30

Phe Asn Leu Phe Ser Thr Lys Asp Ser Ser Ala Thr Trp Asp Glu Thr
65 70 75 80

Leu Leu Asp Lys Phe Tyr Thr Glu Leu Tyr Gln Gln Leu Asn Asp Leu
85 90 95

35

Glu Ala Cys Val Ile Gln Glu Val Gly Val Glu Glu Thr Pro Leu Met
100 105 110

40

Asn Glu Asp Ser Ile Leu Ala Val Lys Lys Tyr Phe Arg Arg Ile Thr
115 120 125

Leu Tyr Leu Thr Glu Lys Lys Tyr Ser Pro Cys Ala Trp Glu Val Val
130 135 140

45

Arg Ala Glu Ile Met Arg Ser Phe Ser Phe Ser Thr Asn Leu Gln Lys
145 150 155 160

Arg Leu Arg Arg Lys Glu
165

50

<210> 80

<211> 166

<212> PRT

55

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic amino acid

<220>

<223> Clone ID CH1.2

<400> 80

5 Cys Asp Leu Pro Gln Thr His Ser Leu Gly Asn Arg Arg Ala Leu Ile
1 5 10 15

Leu Leu Ala Gln Met Gly Arg Ile Ser Pro Phe Ser Cys Leu Lys Asp
10 20 25 30

Arg His Asp Phe Gly Phe Pro Gln Glu Glu Phe Asp Gly Asn Gln Phe
35 40 45

Gln Lys Ala Gln Gly Ile Ser Val Leu His Glu Met Ile Gln Gln Thr
15 50 55 60

Phe His Leu Phe Ser Thr Lys Asp Ser Ser Ala Thr Trp Glu Gln Ser
65 70 75 80

20 Leu Leu Glu Lys Phe Ser Thr Glu Leu Asn Gln Gln Leu Asn Asp Leu
85 90 95

Glu Ala Cys Val Ile Gln Glu Val Gly Val Glu Glu Thr Pro Leu Met
100 105 110

25 Asn Val Asp Ser Ile Leu Ala Val Lys Lys Tyr Phe Arg Arg Ile Thr
115 120 125

Leu Tyr Leu Thr Glu Lys Lys Tyr Ser Pro Cys Ala Trp Glu Val Val
30 130 135 140

Arg Ala Glu Ile Met Arg Ser Phe Ser Phe Ser Thr Asn Leu Gln Lys
145 150 155 160

35 Arg Leu Arg Arg Lys Glu
165

<210> 81

<211> 166

<212> PRT

<213> Artificial Sequence

<220>

45 <223> Description of Artificial Sequence: Synthetic amino acid

<220>

<223> Clone ID CH1.3

50 <400> 81

Cys Asp Leu Pro Gln Thr His Ser Leu Gly Asn Arg Arg Thr Leu Met
1 5 10 15

Ile Met Ala Gln Met Gly Arg Ile Ser Pro Phe Ser Cys Leu Lys Asp
55 20 25 30

Arg His Asp Phe Gly Phe Pro Gln Glu Glu Phe Asp Gly Asn Gln Phe
35 40 45

Gln Lys Ala Gln Ala Ile Ser Val Leu His Glu Met Ile Gln Gln Thr
 50 55 60

Phe Asn Leu Phe Ser Thr Lys Asp Ser Ser Ala Thr Trp Asp Glu Thr
 5 65 70 75 80

Leu Leu Asp Lys Phe Tyr Thr Glu Leu Tyr Gln Gln Leu Asn Asp Leu
 10 85 90 95

Glu Ala Cys Met Met Gln Glu Val Gly Val Glu Asp Thr Pro Leu Met
 10 100 105 110

Asn Val Asp Ser Ile Leu Thr Val Arg Lys Tyr Phe Arg Arg Ile Thr
 15 115 120 125

Leu Tyr Leu Thr Glu Lys Lys Tyr Ser Pro Cys Ala Trp Glu Val Val
 20 130 135 140

Arg Ala Glu Ile Met Arg Ser Phe Ser Phe Ser Thr Asn Leu Gln Lys
 25 145 150 155 160

Arg Leu Arg Arg Lys Glu
 30 165

<210> 82
 <211> 166
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic amino acid

<220>
 <223> Clone ID CH1.4

<400> 82
 Cys Asp Leu Pro Gln Thr His Ser Leu Gly Asn Arg Arg Ala Leu Ile
 35 1 5 10 15

Leu Leu Ala Gln Met Gly Arg Ile Ser Pro Phe Ser Cys Leu Lys Asp
 40 20 25 30

Arg His Asp Phe Gly Phe Pro Gln Glu Glu Phe Gly Gly Asn Gln Phe
 45 35 40 45

Gln Lys Ala Gln Ala Ile Ser Val Leu His Glu Met Ile Gln Gln Thr
 50 55 60

Phe Asn Leu Phe Ser Thr Glu Asp Ser Ser Ala Ala Trp Asp Glu Thr
 55 65 70 75 80

Leu Leu Asp Lys Phe Tyr Ile Glu Leu Phe Gln Gln Leu Asn Asp Leu
 60 85 90 95

Glu Ala Cys Val Met Gln Glu Glu Arg Val Gly Glu Thr Pro Leu Met
 65 100 105 110

Asn Ala Asp Ser Ile Leu Ala Val Lys Lys Tyr Phe Gln Arg Ile Thr

115 120 125

Leu Tyr Leu Thr Glu Lys Lys Tyr Ser Pro Cys Ala Trp Glu Val Val
130 135 140

5 Arg Ala Glu Ile Met Arg Ser Phe Ser Phe Ser Thr Asn Leu Gln Lys
145 150 155 160

Arg Leu Arg Arg Lys Glu
10 165

<210> 83
<211> 166
15 <212> PRT
<213> Artificial Sequence

<220>
20 <223> Description of Artificial Sequence: Synthetic amino acid
<220>
<223> Clone ID CH2.1

<400> 83
25 Cys Asp Leu Pro Gln Thr His Ser Leu Gly Asn Arg Arg Thr Leu Met
1 5 10 15

Ile Met Ala Gln Met Gly Arg Ile Ser Pro Phe Ser Cys Leu Lys Asp
20 25 30

30 Arg His Asp Phe Gly Phe Pro Gln Glu Glu Phe Asp Gly Asn Gln Phe
35 40 45

Gln Lys Ala Gln Ala Ile Ser Val Leu His Glu Met Ile Gln Gln Thr
35 50 55 60

Phe Asn Leu Phe Ser Thr Lys Asp Ser Ser Ala Thr Trp Asp Glu Thr
65 70 75 80

40 Leu Leu Asp Lys Phe Tyr Thr Glu Leu Tyr Gln Gln Leu Asn Asp Leu
85 90 95

Glu Ala Cys Met Ile Gln Glu Val Gly Val Glu Glu Thr Pro Leu Met
45 100 105 110

Asn Glu Asp Ser Ile Leu Ala Val Lys Lys Tyr Phe Arg Arg Ile Thr
115 120 125

50 Leu Tyr Leu Thr Glu Lys Lys Tyr Ser Pro Cys Ala Trp Glu Val Val
130 135 140

Arg Ala Glu Ile Met Arg Ser Phe Ser Phe Ser Thr Asn Leu Gln Lys
145 150 155 160

55 Arg Leu Arg Arg Lys Glu
165

<210> 84

<211> 166
<212> PRT
<213> Artificial Sequence

5 <220>
<223> Description of Artificial Sequence: Synthetic amino acid

<220>
<223> Clone ID CH2.2

10 <400> 84
Cys Asp Leu Pro Gln Thr His Ser Leu Gly Asn Arg Arg Ala Leu Ile
1 5 10 15

15 Leu Leu Ala Gln Met Gly Arg Ile Ser Pro Phe Ser Cys Leu Met Asp
20 25 30

Arg His Asp Phe Gly Phe Pro Gln Glu Glu Phe Asp Asp Asn Gln Phe
35 40 45

20 Gln Lys Ala Gln Ala Ile Ser Val Leu His Glu Met Ile Gln Gln Thr
50 55 60

25 Phe Asn Leu Phe Ser Thr Lys Asp Ser Ser Ala Thr Trp Asp Glu Thr
65 70 75 80

Leu Leu Asp Lys Phe Tyr Thr Glu Leu Tyr Gln Gln Leu Asn Asp Leu
85 90 95

30 Glu Ala Cys Met Met Gln Glu Val Gly Val Glu Glu Thr Pro Leu Met
100 105 110

Asn Val Asp Ser Ile Leu Thr Val Lys Lys Tyr Phe Arg Arg Ile Thr
115 120 125

35 Leu Tyr Leu Thr Glu Lys Lys Tyr Ser Pro Cys Ala Trp Glu Val Val
130 135 140

40 Arg Ala Glu Ile Met Arg Ser Phe Ser Phe Ser Thr Asn Leu Gln Lys
145 150 155 160

Arg Leu Arg Arg Lys Glu
165

45 <210> 85
<211> 166
<212> PRT
<213> Artificial Sequence

50 <220>
<223> Description of Artificial Sequence: Synthetic amino acid

<220>
<223> Clone ID CH2.3

<400> 85
Cys Asp Leu Pro Gln Thr His Ser Leu Gly Asn Arg Arg Thr Leu Met
1 5 10 15

09685189 400600

Ile Met Ala Gln Met Gly Arg Ile Ser Pro Phe Ser Cys Leu Lys Asp
20 25 30

5 Arg His Asp Phe Gly Phe Pro Gln Glu Glu Phe Asp Gly Asn Gln Phe
35 40 45

Gln Lys Ala Gln Ala Ile Ser Val Leu His Glu Met Ile Gln Gln Thr
50 55 60

10 Phe Asn Leu Phe Ser Thr Lys Asp Ser Ser Ala Thr Trp Asp Glu Thr
65 70 75 80

Leu Leu Asp Lys Phe Tyr Thr Glu Leu Tyr Gln Gln Leu Asn Asp Leu
15 85 90 95

Glu Ala Cys Met Met Gln Glu Val Gly Val Glu Glu Thr Pro Leu Met
100 105 110

20 Asn Glu Asp Ser Ile Leu Ala Val Lys Lys Tyr Phe Arg Arg Ile Thr
115 120 125

Leu Tyr Leu Thr Glu Lys Lys Tyr Ser Pro Cys Ala Trp Glu Val Val
130 135 140

25 Arg Ala Glu Ile Met Arg Ser Phe Ser Phe Ser Thr Asn Leu Gln Lys
145 150 155 160

Arg Leu Arg Arg Lys Glu
30 165

<210> 86
<211> 15
35 <212> DNA
<213> Artificial Sequence

<220>
40 <223> Description of Artificial Sequence: Synthetic DNA

<400> 86
tgcgacttac caca 15

45 <210> 87
<211> 26
<212> PRT
<213> Artificial Sequence

<220>
50 <223> Description of Artificial Sequence: Synthetic amino acid

<400> 87
Trp Glu Val Val Arg Ser Glu Ile Met Arg Ser Phe Ser Tyr Ser Thr
1 5 10 15

55 Asn Leu Gln Arg Arg Leu Arg Arg Lys Asp
20 25

<210> 88
<211> 26
<212> PRT
5 <213> Artificial Sequence
<220>
<223> Description of Artificial Sequence: Synthetic amino acid
<400> 88
10 Trp Glu Leu Val Arg Ala Glu Ile Val Arg Ser Phe Ser Phe Ser Thr
1 5 10 15
Asn Leu Asn Lys Arg Leu Arg Lys Lys Glu
20 25
15

09695189-100600